U.S. Department of the Interior Bureau of Land Management White River Field Office 73544 Hwy 64 Meeker, CO 81641

ENVIRONMENTAL ASSESSMENT

NUMBER: CO-110-2005-191-EA

CASEFILE/PROJECT NUMBER: Allotments: Bull Draw (06354)

East Douglas Creek (06356)

PROJECT NAME: Grazing Permit Renewal for Bryant 1991 Trust (Ron Bryant).

LOCATION OF PROPOSED ACTION: Rio Blanco County and Garfield County

LEGAL DESCRIPTION:

Al	lotment		Legal Description			
Number Name		BLM Acres	TWP(S)	RGE(W)	Section(s)/Lot(s) \or Portions of	
06354 Bull Draw		9778	T2S	R101W	Sec. 4.5,4,8,9,16,17,18,19,20,21,28,29,30	
			T2S	R102W	Sec. 12,13,14,15,22,23,24,25,26,27	
06356	East Douglas	36,070	T2S	R101W	Sec. 32-36	
	Creek		T3S	R102W	Sec. 6,7,8,18,17,19,20,30,31	
			T4S	R102W	Sec. 1-4,9-16,21-23,26-29,32-34	
			T5S	R102W	Sec 8-10,15-21,28,29	

APPLICANTS: Bryant 1991 Trust (Ron Bryant).

ISSUES AND CONCERNS (optional):

- Bull Draw is within the West Douglas Herd Area.
- Allotment is within the Douglas Creek ACEC designated for Colorado River Cutthroat Trout a sensitive species.
- Noxious weeds have been an ongoing concern of the BLM and the Grazing Permittee.
- Under developed riparian plant communities in portions of Brush Creek
- Under developed riparian plant communities in portions of Wild Horse Canyon.
- Damage resulting from historical grazing management practices.
- Both of the allotments have portions of Canyon Pintado Historic District within the allotment boundaries.

DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES:

Background/Introduction: During the 1980's the grazing permittee was found to be grazing more cattle than was permitted by the BLM. This use degraded plant communities and allowed noxious weeds to proliferate. To address these problems BLM implemented trespass action, and required tagging of livestock. (Special tags are provided by the BLM for the number of livestock permitted on the allotment. Those livestock without tags are considered to be in trespass.

Trespass action can lead to suspension or cancellation of a Grazing Permit). Decreasing the number of livestock, back to permitted level, allowed plant communities an opportunity to recover.

The Bull Draw allotment was grazed through the spring growing season preventing forage species recovery. The bottoms of the canyons were degraded with vegetation composition primarily of cheatgrass. To address the vegetation composition issues on Bull Draw, the period of use was reduced to end March 30, eliminating growing season use. There have also been several wildfires on this allotment since 1990 which were reseeded. These reclaimed wild fires produce forage far in excess of the previous plant community (PJ). The abundance of upland forage and deferred grazing every year has allowed the bottoms to improve in composition and production.

The East Douglas Creek and Bull Draw Allotments were acquired by Bryant 1991 Trust in 1991. In preparing the transfer a disparity in the % Public Land was identified for the area south of Brushy Point. As a result of this disparity a grazing program was developed which divided the summer ranges of East Douglas Creek allotment into three pastures; Trail, Chrystal and Brush Creek, each used for one month during the summer season. This grazing system along with aggressive weed control has improved vegetation composition on the summer ranges.

The winter/spring ranges of East Douglas Creek allotment found north of Brushy Point to East Douglas Creek include native and introduced forage types. Approximately 2,600 acres of pinyon/juniper woodland were chained in the 1960s and prescribed burned in 2000-2002. An Environmental Assessment (EA) was completed in 2005 for stock ponds that would increase livestock use of these chainings and decrease use of the bottoms. These improvements are expected to decrease grazing intensity and period of use on the valley bottoms improving vegetation composition and productivity.

The Permit Area can be divided into three elevation zones with dominant vegetative classifications listed below:

- 1. Bull Draw pasture is composed of pinyon/juniper woodlands and greasewood bottoms.
- 2. Texas Camp pasture is composed of pinyon/juniper woodlands including chainings, greasewood bottoms and mountain shrub communities.
- 3. Trail Canyon, Chrystal and Brush creek pastures are composed of mountain shrub, aspen, Douglas-fir and subalpine fir vegetation communities.

Grazing Allotments in the White River Field Office (WRFO) have been placed into one of three management categories that define the intensity of management: (1) improve, (2) custodial and

- (3) maintain. These categories define rangeland management objectives based on analysis of an allotment's resource characteristics, potential, management opportunities and needs. The East Douglas Creek and Bull Draw allotments were placed in the more intensive "improve" category.
- **A. Proposed Action:** Renew the grazing permits for Bryant 1991 Trust for a 10 year period as outlined in the proposed grazing permit tables below. A Term and Condition on the permits will require the permittees to follow the rotation system as outlined in this EA. The grazing schedule would modify the existing grazing system which meets the intent of the minimum rest requirements established by the White River ROD/RMP. The exception to this is the Texas Camp pasture which is grazed during the spring every year. Use of the Texas Camp pasture relies on moving livestock elevationally to allow post grazing recovery. Critical to improving vegetation communities in the drainages bottoms is the use the uplands containing pinyon/juniper manipulations which provide forage and stock ponds for water.

The proposed rotational grazing schedules were developed in conjunction with the grazing permittees Bryant 1991 Trust and have been in effect since 1995.

<u>Bull Draw East Douglas Creek:</u> The objectives of the grazing system are to:

- Maintain or enhance a healthy rangeland vegetation composition and species diversity, capable of supplying forage at a sustained yield to meet the current forage demands for livestock and wildlife.
- Provide for adequate forage plant growth and or re-growth opportunities necessary to: 1) replenish plants' food reserves; and 2) produce sufficient seed to meet the reproduction needs necessary to maintain an ecological presence in the plant community.
- Improve riparian health with emphasis on Brush Creek.
- Continue to decrease the acreage of noxious weeds.

PROPOSED GRAZING SCHEDULE:

ALLOTMENT	PASTURE	#CATTLE	GRAZING ON DATE	GRAZING OFF DATE	% PL	AUMS
Bull Draw	All	60	March 1	March 31	100	60
E. Douglas	Texas Camp	165	March 1	March 31	100	168
E. Douglas	Texas Camp	225	April 1	June 30	100	673
E. Douglas	Trail Canyon	225	July 1	July 31	100	229
E. Douglas	Crystal Springs	225	August 1	August 31	100	229
E. Douglas	Brush Creek	225	Sept. 1	Sept.30	100	222
E. Douglas	Trail Canyon	60	October 1	October 31	100	61
E. Douglas	Texas Camp	165	October 1	October 31	100	168
E. Douglas	Texas Camp	165	November 1	February 28	100	651
Bull Draw	All	60	November 16	February 28	100	237

PROPOSED PERMITTED USE:

ALLOTMENT	ACTIVE AUMS	SUSPENDED AUMS	TOTAL PERMITTED USE
Bull Draw	297	252	549
East Douglas	2400	0	2400
Totals	2697	252	2949

Rangeland Improvements Necessary to Implement the Grazing System: No rangeland improvements (RI) are proposed to implement the grazing system. Future evaluations of allotment conditions may identify improvements that would aid in achieving objectives. In which case, a separate EA would be compiled to approve any such new RI on a site specific basis.

Monitoring and Evaluation: Two long-term trend monitoring sites within the Bull Draw allotment were established and read in 1979. Six long-term trend monitoring sites within the East Douglas Creek allotment were established in 1965, 1967 and 1979. Trend sites include a permanent, repeatable photo plot and a permanent, repeatable Daubenmire transect line to measure ground cover and frequency. All study sites were established in key areas or associated with the pinyon/juniper chainings completed in the 1960's and is used to monitor livestock grazing use. These studies were established under protocol developed in the *Grazing Allotment Monitoring Plan for the White River Resource Area*.

<u>Grazing Permit Terms and Conditions</u>: The following terms and conditions as required by 43 CFR 4130.3 will be included in the grazing permit issued under this alternative:

- 1. Grazing use will occur as per the Grazing Permit Schedule (4130.3-1(a)), developed from this environmental assessment CO-110-2005-191-EA.
- 2. Grazing use authorized under this grazing permit/lessee may be suspended, in whole or in part, for violation by the permittee/lessee of any of the provisions of the rules or regulations now or hereafter approved by the Secretary of the Interior.
- 3. This grazing permit/lease is subject to cancellation, in whole or in part, at any time because of:
 - a. Noncompliance by the permittee/lessee with rules and regulations now or hereafter approved by the Secretary of the Interior.
 - b. Loss of control by the permittee/lessee of all or a part of the property upon which it is based.
 - c. A transfer of grazing preference by the permittee/lessee to another party.
 - d. A decrease in the lands administered by the Bureau of Land Management within the allotment(s) described herein.
 - e. Repeated willful unauthorized grazing use
- 4. Grazing fees are due upon issuance of a billing notice.
- 5. In accordance with 43 CFR 4130.8-1(F): Failure to pay grazing bills within 15 days of the due date specified in the bill shall result in a late fee assessment. Payment made later than 15 days after the due date, shall include the appropriate late fee assessment. Failure to make payment within 30 days may be a violation of 43 CFR Sec. 4140.1(b)

- (1) and shall result in action by the authorized officer under 43 CFR Secs. 4150.1 and 4160.1-2 (Trespass).
- 6. No grazing use can be authorized under this grazing permit/lease during any period of delinquency in the payment of amounts due in settlement for unauthorized grazing use.
- 7. The permittee or lessee must provide reasonable livestock grazing related administrative access across private and leased lands to the BLM for the orderly management and protection of the public lands, as outlined 43 CFR 4130.3-2(h).
- 8. It is unlawful for the permittee, agents or employees to knowingly disturb or collect cultural, historical or paleontological materials on public lands. If cultural, historical or paleontological materials are found, including human remains, funerary items or objects of cultural patrimony, the permittee is to stop activities that might disturb such materials, and notify the authorized officer immediately.
- 9. This grazing permit/lease is subject to the provisions of executive Order NO. 11246 of September 24, 1965, as amended, which sets forth nondiscrimination clauses. A copy of this order may be obtained from the authorized officer.
- 10. The permittee's/lessee's grazing case file is available for public inspection as required by the Freedom of Information Act.

Alternative B: Renew the Grazing Permit without modification (Continuation of Current Management):

Under this alternative the grazing permit would be similar to the current permit (Fall use in Trail Canyon would be extended to November 15). The grazing schedule and objectives would generally be the same as Alternative A.

EXISTING GRAZING SCHEDULE

ALLOTMENT	PASTURE	#CATTLE	GRAZING ON DATE	GRAZING OFF DATE	% PL	AUMS
Bull Draw	All	43	March 1	March 30	100	42
E. Douglas	Texas Camp	150	March 1	June 30	100	602
E. Douglas	Texas Camp	50	June 15	June 30	100	26
E. Douglas	Trail Canyon	187	July 1	July 31	100	204
E. Douglas	Trail Canyon	13	July 1	July 31	Free use	13
E. Douglas	Crystal Springs	187	August 1	August 31	100	204
E Douglas	Crystal Springs	13	August 1	August 31	Free use	13
E. Douglas	Brush Creek	187	September 1	September 30	100	204
E Douglas	Brush Creek	13	September 1	September 30	Free use	13
E. Douglas	Trail Canyon	60	October 1	November 15	100	91
E. Douglas	Texas Camp	50	October 1	October 31	100	51
E. Douglas	Texas Camp	128	November 1	February 28	100	505
Bull Draw	All	42	November 16	February 28	100	145

EXISTING PERMITTED USE

ALLOTMENT	ACTIVE AUMS	SUSPENDED AUMS	PERMITTED USE
Bull Draw	187	362	549
East Douglas	1805	0	1805
Total	1992	362	2354

No Action Alternative: Under the no action alternative the application would be denied.

Comparison of Alternatives

Differences in the existing (Alternative B) and the proposed (Alternative A) grazing systems are; the Free Use AUMs would be converted to Active Use, the number of cattle allowed to graze Bull Draw would be increased for 43 to 60, and fall/winter use of Texas Camp would be increased from 128 cattle to 165 cattle. Total Active AUMs would increase 35% from 1,992 to 2,697 and suspended use would be decreased (30%) from 362 to 252.

The justifications for raising the Permitted Use are:

Monitoring and analysis of the carrying capacity indicated that the carrying capacity of
the allotment was approximately 250 cattle on a year round basis. In 1998 the BLM
issued Bryant Trust a letter agreeing to authorize temporary use up to 250 cattle. The
chart below shows the number of cattle authorized to graze since 1998. The droughts of
2000 to 2004 suggest that 225 cattle yearlong would be a more conservative approach.

NUMBER OF CATTLE AUTHORIZED TO GRAZE SINCE 1998

YEAR	NUMBER OF CATTLE				
2005	200 Reduced for drought*				
2004	198 Reduced for drought				
2003	130 Reduced for drought				
2002	250				
2001	250				
2000	250				
1999	250				
1998	250				

^{*}As of September 2005, forage conditions and productivity allowed increased grazing use to 200 cattle.

- Bull Draw allotment was changed from a winter/spring use to winter use only. This allowed growing season rest every year and improved forage condition and productivity.
- Approximately 1,000 acres of pinyon/juniper, in Bull Draw have burned under wildfire conditions. These burns were all seeded providing increased carrying capacity of approximately 100 AUMs.
- Approximately 3,500 acres of pinyon/juniper chainings, in East Douglas Creek have been prescribed burned. These burns have recovered with increased carrying capacity of approximately 350 AUMs.

- Stock ponds have been approved which will improve use of the chainings in Texas Camp pasture and allow improvement of the valley bottoms.
- Weed control on the summer ranges have allowed ranges infested with houndstongue and Kentucky bluegrass to develop into brome/needlegrass with an increase in forage productivity of three fold. (300 pounds to 900+ pounds)

ALTERNATIVES CONSIDERED BUT NOT CARRIED FORWARD: None

NEED FOR THE ACTION: BLM permit #051459 which authorizes grazing on the East Douglas Creek and Bull Draw allotments expired on February 28, 2006. These permits are subject to renewal at the discretion of the Secretary of the Interior for a period of up to ten years. The Bureau of Land Management has the authority to renew livestock grazing permits/leases in accordance with the provisions of the Taylor Grazing Act, the Public Rangeland Improvement Act, the Federal Land Policy and Management Act and the White River Resource Area Resource Management Plan/Environmental Impact Statement as amended by the Standards for Public Land Health in Colorado.

In order to graze livestock on public land, the livestock producer (permittee) must hold a grazing permit. The grazing permittee has a preference right to receive the permit, if grazing is to continue. The land use plan allows grazing to continue.

<u>PLAN CONFORMANCE REVIEW</u>: The Proposed Action is subject to and has been reviewed for conformance with the following plan (43 CFR 1610.5, BLM 1617.3):

Name of Plan: White River Record of Decision and Approved Resource Management Plan (ROD/RMP).

Date Approved: July 1, 1997

Decision Number/Page: pages 2-22 through 2-26

<u>Decision Language</u>: Livestock grazing will be managed as described in the 1981 Rangeland Program Summary (RPS). That document is the Record of Decision for the 1981 White River Grazing Management Final Environmental Impact Statement (Grazing EIS).

<u>COMPLIANCE WITH SECTION 302 OF FLPMA RELATIVE TO THE COMB WASH GRAZING DECISION</u>

A review of applicable planning documents and a thoughtful consideration of the new issues and new demands for the use of the public lands involved with this allotment have been made. This analysis concludes that the current multiple use allocation of resources is appropriate.

<u>AFFECTED ENVIRONMENT / ENVIRONMENTAL CONSEQUENCES / MITIGATION MEASURES:</u>

STANDARDS FOR PUBLIC LAND HEALTH: In January 1997, Colorado Bureau of Land Management (BLM) approved the Standards for Public Land Health. These standards cover upland soils, riparian systems, plant and animal communities, threatened and endangered species, and water quality. Standards describe conditions needed to sustain public land health and relate to all uses of the public lands. Because a standard exists for these five categories, a finding must be made for each of them in an environmental analysis. These findings are located in specific elements listed below: Alternatives A, B, and C are based on expected changes over the 10 year period of this lease and are compared against the current situation.

STANDARDS FOR PUBLIC LAND HEALTH

	Current Situation		Act	With Proposed Action Alternative A		Renew the Grazing Permit without modification Alternative B		No Grazing Alternative C	
Standard	Achieving or Moving Towards Achieving	Not Achieving	Causative Factors	Achieving or Moving Towards Achieving	Not Achieving	Achieving or Moving Towards Achieving	Not Achieving	Achieving or Moving Towards Achieving	Not Achieving
#1-Upland	l Soils by C	Combined P	astures						
East Douglas Cr. & Bull Draw	43,785 acres	391 acres	Livestock Grazing	44,059 acres	117 acres	44,078 acres	98 acres	44,137 acres	39 acres
#2-Riparia	#2-Riparian Systems by Stream								
East & West Douglas Creeks	2.5 miles	0 miles	N/A	2.5 miles	0 miles	2.5 miles	0 miles	2.5 miles	0 miles
Wild Horse Canyon	1.5 miles	0.125 miles	Livestock Grazing	1.5 miles	0.125 miles	1.5 miles	0.125 miles	1.5 miles	0.125 miles
Brush Creek	2.25 miles	0.75 miles	Livestock Grazing	2.25 miles	0.75 miles	2.25 miles	0.75 miles	3.0 miles	0 miles
#3-Plant C	Communitie	es by Pastur	·e						
East Douglas Cr.	33,859 acres	388 acres	Cheatgrass /Historical grazing practices	34,103 acres	144 acres	34,103 acres	144 acres	34,150 acres	97acres
Bull Draw	9,526 acres	403 acres	Cheatgrass /Historical grazing practices	9,726 acres	263 acres	9,726 acres	263 acres	9,826 acres	103acres
#4-Anima	l Communi	ties							

STANDARDS FOR PUBLIC LAND HEALTH

	Current Situation			Act	With Proposed Action Alternative A		Renew the Grazing Permit without modification Alternative B		No Grazing Alternative C	
Standard	Achieving or Moving Towards Achieving	Not Achieving	Causative Factors	Achieving or Moving Towards Achieving	Not Achieving	Achieving or Moving Towards Achieving	Not Achieving	Achieving or Moving Towards Achieving	Not Achieving	
East Douglas	33,859 acres	388 acres	Cheatgrass /Historical grazing practices	34,103 acres	144 acres	34,103 acres	144 acres	34,150 acres	97acres	
Bull Draw	9,526 acres	403 acres	Cheatgrass /Historical grazing practices	9,726 acres	263 acres	9,726 acres	263 acres	9,826 acres	103acres	
#4-Special	Status, T&	E Species								
Brush Creek	2.8 miles	0 miles	N/A	2.8 miles	0 miles	2.8 miles	0 miles	2.8 miles	0 miles	
East Douglas Creek	4.3 miles	0 miles	N/A	4.3 miles	0 miles	4.3 miles	0 miles	4.3 miles	0 miles	
#5-Water	Quality									
East & West Douglas Creeks	2.5 miles	0 miles	N/A	2.5 miles	0 miles	2.5 miles	0 miles	2.5 miles	0 miles	
Wild Horse Canyon	1.5 miles	0.125 miles	Livestock Grazing	1.5 miles	0.125 miles	1.5 miles	0.125 miles	1.5 miles	0.125 miles	
Brush Creek	2.25 miles	0.75 miles	Livestock Grazing	2.25 miles	0.75 miles	2.25 miles	0.75 miles	3.0 miles	0 miles	

<u>AFFECTED ENVIRONMENT / ENVIRONMENTAL CONSEQUENCES / MITIGATION MEASURES:</u>

STANDARDS FOR PUBLIC LAND HEALTH: In January 1997, Colorado Bureau of Land Management (BLM) approved the Standards for Public Land Health. These standards cover upland soils, riparian systems, plant and animal communities, threatened and endangered species, and water quality. Standards describe conditions needed to sustain public land health and relate to all uses of the public lands. Because a standard exists for these five categories, a finding must be made for each of them in an environmental analysis. These findings are located in specific elements listed below:

CRITICAL ELEMENTS

AIR QUALITY

Affected Environment: The entire WRFO resource area has been designated as either attainment or unclassified for all pollutants, and most of the area has been designated prevention of significant deterioration (PSD) class II. The proposed grazing permit renewal is not located within a 20 mile radius of any special designated air-sheds or non-attainment areas.

Environmental Consequences of the Proposed Action Alternative A: No adverse environmental consequences are anticipated from implementation of the proposed grazing permit renewal.

Environmental Consequences of the Continuation of Current Management Alternative: None

Environmental Consequences of the No Action Alternative: None

Mitigation: None

AREAS OF CRITICAL ENVIRONMENTAL CONCERN

Affected Environment: The allotment is fully encompassed by the 47,610 acre East Douglas ACEC. This area was designated through the 1997 White River RMP as a means of emphasizing management of, and fulfilling recovery goals for, special status populations of Colorado River cutthroat trout (i.e., currently BLM-sensitive, Colorado Division of Wildlife Species of Special Concern). Management objectives within the ACEC are intended to coordinate and adjust all land uses in a manner that complements the maintenance and enhancement of lotic habitats for Colorado River cutthroat trout. At the present time, the upper reaches of East Douglas Creek and the lower reaches of Brush Creek are occupied by these trout. Occupied waters are predominantly privately-owned and managed.

Environmental Consequences of the Proposed Action Alternative A: The proposed action meets management criteria established for the ACEC in that it maintains improving trends in riparian and channel development and would not degrade physical and biological attributes of waters occupied or contribute to waters occupied by Colorado River cutthroat trout (see discussion in Aquatic Habitat section below).

Environmental Consequences of the Continuation of Current Management Alternative: Same as Alternative A.

Environmental Consequences of the No Action Alternative: Same as Alternative A.

Mitigation: None but see Wildlife, Aquatic section below.

CULTURAL RESOURCES

Affected Environment: The East Douglas grazing allotment includes areas containing some of the highest cultural resource site densities in the WRFO area. Sites are associated with prehistoric transportation corridors, resource acquisition localities, Formative stage horticultural and occupation localities, historic transportation routes, mining and cattle ranching. The allotment also includes portions of the Canyon Pintado National Historic District, which contains numerous examples of Fremont rock art, listed on the National Register of Historic Places. Inventories in this allotment indicate a relatively high site density along with substantial favorable areas for prehistoric site locations. Previous inventories indicate that sites are mainly limited to areas adjacent to water, vantage point localities, in Pinyon/Juniper forest - especially with southern exposure, along transportation corridors, and on slopes of less than 30%. The highest site densities appear to occur in the north while the upland areas to the south received less prehistoric use, although much of this pattern may be an artifact of the positioning of inventories. Much of allotment contains steep (over 30%) slopes and is distant from water sources, while the majority of the land surfaces within this allotment are the more favorable Pinyon-Juniper ridges, bottomlands and steep cliff (rockshelter) areas. The highest site densities occur in the Northern portion of the allotment. Site densities in this area may exceed 100 sites per section. It is expected that this allotment will contain mainly ephemeral lithic scatters and isolates in the dryer and more upland areas, while the lower ridges and valley bottoms will contain the more substantial occupation sites. The majority of the allotment should contain an average of eight eligible sites per section. Using these figures and extrapolating against the entire allotment area, it is estimated that a total of 3,720 cultural properties are located within the allotment boundaries, of which some 2,000 are eligible sites.

The Bull Draw allotment is a part of the East Douglas grazing allotment and like the East Douglas allotment includes areas containing some of the highest cultural resource site densities in the WRFO area. Sites are found associated with prehistoric transportation corridors, resource acquisition localities, Formative stage horticultural and occupation localities, historic transportation routes, mining and cattle ranching. The allotment also includes portions of the Canyon Pintado National Historic District, containing numerous examples of Fremont rock art, which is listed on the National Register of Historic Places. Inventories in this allotment indicate a relatively high site density along with substantial favorable areas for prehistoric site locations. Previous inventories indicate that sites are mainly limited to areas adjacent to water, vantage point localities, in pinyon/juniper forest - especially with southern exposure, along transportation corridors, and on slopes of less than 30%. The highest site densities appear to occur in the north while the upland areas to the south received less prehistoric use, although much of this pattern may be an artifact of the positioning of inventories. It is expected that this allotment will contain mainly ephemeral lithic scatters and isolates in the dryer and more upland areas, while the lower ridges and valley bottoms will contain the more substantial occupation sites. Highest site densities are expected to be in the north and northeast portions of the allotment, particularly in Douglas Creek and the Canyon Pintado National Register District.

Environmental Consequences of the Proposed Action Alternative A: Beginning in the late 1970's and continuing to the mid 1990's site recording standards for the State of Colorado

asked that impacts from animals be noted on all site forms. The choices were usually "livestock" or "animals" with no distinction as to what kind of animal impacts were being noted. In the mid to late 1990's, as a result of court decisions, the level of detail and specificity as to the nature of animal impacts has been increased. Standard recording for the WRFO now require that the nature of the animal impacts, specifically those which can be attributed to livestock or horses, be noted on all site forms. Older site forms, almost without exception, note animal impacts to sites in the area suggesting that trampling associated with trailing and congregating in favored areas along with rubbing and/or scratching on certain surfaces has been occurring. Site forms, almost without exception, also note erosion impacts to sites. Erosion is sometimes the most significant impact to sites as smaller artifacts are washed away, vertical spacing is compressed and some features such as hearths and activity surfaces are lost to the erosion process.

Human development related impacts are also noted throughout the area. Those impacts that are related to permit developments are usually mitigated by avoidance to the extent possible. In some instances impacts are permitted as part of the development process after data recovery and preservation efforts have been completed. Impacts from unregulated human activities/ development, such as hunting or other recreational activities, are also noted and are not often mitigated. No change is anticipated for any of these impacts. Monitoring and recording of impacts will continue.

Environmental Consequences of the Continuation of Current Management Alternative: Impacts would be similar to Alternative A.

Environmental Consequences of the No Action Alternative: Impacts discussed in Alternative A would not occur.

Mitigation: It is unlawful for the permittee, agents or employees to knowingly disturb or collect cultural, historical or paleontological materials on public lands. If cultural, historical or paleontological materials are found, including human remains, funerary items or objects of cultural patrimony, the permittee is to stop activities that might disturb such materials, and notify the authorized officer immediately.

INVASIVE, NON-NATIVE SPECIES

Affected Environment: Noxious weeds continue to be a severe problem on this allotment. Noxious weeds found on the allotment include houndstongue which is the greatest problem, black henbane which is found near the radar dome and is nearly controlled, bull thistle which is scattered and uncommon, Canada thistle found in riparian areas and being treated, spotted knapweed which was treated near the radar dome, Russian knapweed which has been found along the East Douglas Creek road and treated, and burdock which is scattered on Brushy point. Cheat grass can be found in all vegetation association on the allotment. This noxious weed tends to be a problem in canyon bottoms and disturbed areas. Houndstongue by far is the greatest noxious weed problem on the allotment. Treatment of this weed was started in 1998 and continues. Approximately 80% or the area infested with houndstongue has been treated.

Environmental Consequences of the Proposed Action Alternative: The proposed grazing schedule is essentially the same as has been used since 1998. This grazing system allows either deferment or recovery of ranges which is critical to improving plant cover and composition for the purpose of providing competition against introduction and spread of noxious weed species. The weed treatment program is expected to take a minimum of three more years before being turned over to the grazing permittee for maintenance. The grazing permittee has participated in weed control and has been instrumental in controlling noxious weeds on the private lands in Brush Creek. As livestock distribution and forage production continue to improve the extent of cheat grass is expected to decline. Overall the acreage in noxious weeds is expected to continue to decline.

Environmental Consequences of the Continuation of Current Management Alternative: Impacts would be similar to Alternative A, although logically a 35% decrease in grazing use would allow plant communities increased opportunity to develop and provide additional competition against noxious weed invasion and spread, the actual improvement in plant community health would not be as pronounced as expected, given that both alternative retain a forage buffer of greater than 450 AUMs, and allows either deferment or recovery to forage species which is and has been improving plant community development.

Environmental Consequences of the No Action Alternative: Plant cover and competition against noxious weeds would be greater than alternatives A and B. The BLM would bear all responsibility for inventory and control efforts. The incentive to control noxious weeds on the private lands in Brush Creek would be lost as would the opportunity to turn maintenance treatments over to grazing permittee. If BLM is able to continue treatment of noxious weeds the overall the acreage in noxious weeds is expected to continue to decline. More likely BLM would not be able to continue treatment at current levels and noxious weeds would quickly take over and dominate plant communities.

Mitigation: Under Alternatives A and B, the grazing permittee is responsible for documenting and notifying BLM of noxious weed infestations of the following species; leafy spurge, toadflax, knapweeds, musk, bull, Canada and plumeless thistle, Dyer's woad, yellow starthistle, hoary cress and perennial pepperweed. Herbicide treatments by the grazing permittee will be in accordance with bureau policy and approvals.

MIGRATORY BIRDS

Affected Environment: This permit area spans an array of elevations and vegetation communities that support a wide variety of migratory birds during the nesting season (early May through mid July). The Bull Draw allotment is comprised of several vegetation communities including: Wyoming big sagebrush (~ 400 ac), shadscale and native grasses such as sand dropseed, western wheatgrass, Indian rice grass and Colorado wild rye (~ 3100 ac), basin big sagebrush (~ 150 ac), and pinyon-juniper woodlands/pinyon-juniper sage mix (~ 4200 ac). Invasive, non-native, annuals (e.g., cheatgrass and tumble mustard) are present throughout this allotment without particularly heavy expression in the lower ½ of Bull Draw. Birds of higher conservation interest (i.e., Partners in Flight program) associated with these habitats and well

represented throughout this allotment include Brewer's sparrow (sagebrush habitats), black-throated gray warbler, juniper titmouse, gray flycatcher and pinyon jay (pinyon-juniper woodlands).

The East Douglas allotment is made up of a diverse composition of vegetation communities including: Wyoming big sagebrush (~ 2400 ac), mountain shrub (~ 6000 ac), mature and late seral pinyon-juniper woodlands (~21,000 ac), mature Douglas fir woodlands (~2800 ac), midseral basin big sagebrush (500 ac) and late-seral aspen-spruce-fir woodlands (~ 400 ac). Invasive species (e.g., cheatgrass, houndstongue and Canada thistle) are present throughout this allotment at varying densities. Four pastures comprise the East Douglas allotment (Brush Creek, Crystal Springs, Trail Canyon and Texas Camp). Those birds having a high conservation interest include gray flycatcher, pinyon jay, juniper titmouse and black-throated gray warbler (lower elevation pinyon-juniper woodlands), Brewer's sparrow (sagebrush steppe), Virginia's warbler, MacGillivray's warbler and green-tailed towhee (lower elevation pinyon-juniper and mountain shrub), olive-sided and Hammond's flycatcher and Williamson's sapsucker (aspen-spruce-fir woodlands). All birds within both allotments are well distributed at appropriate densities in proper habitats within the allotment and region's extensive like-habitats.

Environmental Consequences of the Proposed Action Alternative: Proposed grazing use within the Bull Draw allotment would increase by 59% from current levels (dormant season use). Although reductions in herbaceous ground cover may be expected, utilization is still considered light-moderate (~40%), thus allowing continued improvements in the composition, vigor, and density of herbaceous ground cover, particularly in those valleys where invasive annuals (e.g., cheatgrass) are prevalent. The proposed period of use within this allotment would not coincide with and would have no potential to directly influence migratory bird nesting activities. Livestock removal by late March allows for essentially unaffected development of herbaceous growth prior to and during the nesting season.

Similarly, proposed use of the Crystal Springs and Brush Creek pastures within the East Douglas allotment would increase by 11% for each allotment from current levels of use. Again, this is not expected to directly influence breeding functions of migratory birds as livestock would not be turned out until August and September, respectively, well after most broods have fledged. There would be an 11% increase in proposed grazing use during July of the Trail Canyon pasture from current levels. Although this would coincide with the latter portions of the breeding season (early – mid-July), progressive declines in ground cover, although rapid, would occur after most broods have fledged and would be expected to have little effect on nest or fledging success.

Under the proposed grazing schedule, there would be a 34% increase in growing season use that is synchronous with the migratory bird nesting season within the Texas Camp pasture. This increase may be expected to indirectly affect nesting success of migratory birds. Cattle grazing practices across the pasture tends to be concentrated in the valley bottoms and in those areas that provide a water source. Where coincident with nesting, only incidental disruption of nests in ground or low shrub situations would be expected. Substantial reductions in effective ground cover may indirectly affect nesting outcomes by increasing the susceptibility of incubating or brooding hens and their clutches to predation or extremes in temperature or moisture. This impact would be most pronounced for ground nesting species (e.g., meadowlark, vesper sparrow)

associated with open shrubland and grassland habitats. Species that are more closely associated with sage-steppe shrub canopies, mountain shrub habitats and mature woodlands are less apt to be influenced by reductions in herbaceous ground cover, though heavy reductions in ground cover would also tend to reduce the availability and variety of forage or forage substrate for breeding birds and may be expected to reduce the nutritional status of nestlings or fledglings.

Livestock use within the Texas Camp pasture tends to be concentrated within the valley bottoms (particularly from March through mid-April). As snow cover diminishes, cattle typically migrate to higher elevations near those areas that provide a water source. In 2005, an EA was completed for construction of stock ponds on approximately 2,600 acres of pinyon-juniper that were chained in the 1960s and prescribed burned in 2000-2002. Construction of these water developments will better distribute livestock, increasing use of the chained areas and decreasing use of the valley bottoms.

Environmental Consequences of the Continuation of Current Management Alternative: Current grazing practices within the Bull Draw allotment and the Crystal Springs and Brush Creek pastures of the East Douglas allotment are not expected to differ markedly from those in the proposed action. While levels of use under the current grazing schedule are anywhere from 11% - 59% less, grazing during early spring, late summer and fall typically does not have any potential to directly influence migratory bird nesting activities as it does not coincide with the breeding season.

Current spring and summer grazing that is synchronous with the migratory bird nesting season is limited to the Texas Camp pasture. Turnout begins in October and continues through the nesting season at moderate to heavy localized use. Terrain and water distribution issues tend to concentrate use in valley bottoms and on those ridges that provide a water source. With relatively rapid and complete removal of understory cover in these areas, it is likely that breeding bird density in these valley bottoms and lower-elevation shrublands (e.g., green-tailed towhee, Brewer's sparrow) is substantially reduced, though not eliminated. Construction of stock ponds should allow for better distribution throughout this pasture, decreasing heavy use in the valley bottoms. The majority of the noxious weed infestations in these pastures are not at a level that noticeably suppresses breeding bird density, due in large part to persistent control efforts by the livestock permittees.

Environmental Consequences of the No Action Alternative: Removal of livestock grazing would substantially reduce the removal of herbaceous ground cover across both allotments; influencing breeding bird activity most where spring and summer use has significantly modified herbaceous ground cover that is used as nest substrate or provides a direct or indirect source of forage (i.e., cover reductions or adverse changes in density or composition). These situations are most prevalent on bottomlands and in those areas in close proximity to water. Substantive gains in breeding bird nest density and reproductive performance would be expected in those circumstances where grazing is currently synchronous with the nesting season (e.g., Texas Camp). Studies where cattle had been removed from riparian and associated shrubland communities in the southwest showed 2 to 3-fold increases in vegetation density that prompted consistent doubling of breeding bird densities in virtually every guild.

The effects of livestock removal would be most influential on lower elevation Wyoming big sagebrush and transitional mixed and mountain shrub communities within the Texas Camp pasture. Enhanced ground cover expression attributable to livestock removal would be expected to increase breeding bird densities, and would bolster local populations of higher conservation species such as Virginia's warbler, Brewer's sparrow, and green-tailed towhee Conversely and confounding any predictable vegetation response to livestock grazing, denying the permit may aggravate the proliferation of noxious weeds within mid-seral mountain shrub range (including riparian communities). Disallowing a livestock permit would remove any incentive for the current permit holders to continue weed control on the allotments and it is unlikely that the BLM could fully assume this role. Noxious weeds would rapidly dominate understories within these communities and breeding bird populations, particularly insectivores such as Virginia's warbler would be expected to undergo strong declines. Unchecked, these aggressive noxious weeds would persist in infesting and degrading more expansive late seral and potential natural community ranges.

Mitigation: None

THREATENED, ENDANGERED, AND SENSITIVE ANIMAL SPECIES (includes a finding on Standard 4)

Affected Environment: There are no threatened, endangered or special status species that are known to inhabit or derive important use from the Bull Draw allotment. See Aquatic Wildlife Section for discussion on Colorado River Cutthroat Trout within the East Douglas allotment.

Environmental Consequences of the Proposed Action Alternative: See discussion in Aquatic Wildlife Section regarding Colorado River Cutthroat Trout.

Environmental Consequences of the Continuation of Current Management Alternative: See discussion in Aquatic Wildlife Section regarding Colorado River Cutthroat Trout.

Environmental Consequences of the No Action Alternative: See discussion in Aquatic Wildlife Section regarding Colorado River Cutthroat Trout.

Mitigation: None

Finding on the Public Land Health Standard for Threatened & Endangered species: See discussion in Aquatic Wildlife Section regarding Colorado River Cutthroat Trout.

WASTES, HAZARDOUS OR SOLID

Affected Environment: There are no known hazardous or other solid wastes on the subject lands.

Environmental Consequences of the Proposed Action Alternative: No hazardous wastes would be generated. Small quantities of solid could be potentially be generated by day to day operations.

Environmental Consequences of the Continuation of Current Management Alternative: No hazardous wastes would be generated. Small quantities of solid waste could be potentially be generated by day to day operations.

Environmental Consequences of the No Grazing Alternative: None

Mitigation: The permittee shall be required to collect and properly dispose of any solid wastes generated by the proposed action.

WATER QUALITY, SURFACE AND GROUND (includes a finding on Standard 5)

Affected Environment: The following table indicates the affected watersheds within the proposed grazing permit renewal for the Bull Draw (6354) and East Douglas Creek (06356) Allotments. Table 1 also identifies the drainage areas, affected stream miles, water quality stream segments, and affected tributaries of the watersheds within the allotment boundaries.

AFFECTED WATERSHEDS WITHIN THE PROPOSED GRAZING PERMIT RENEWAL

WATERSHED NAME	ALLOTMENT NUMBER	STREAM SEGMENT	STREAM MILES	ACRES	AFFECTED TRIBUTARY
Big Bull Draw	6354	22	19.0	5,001	Douglas Creek
Little Bull Draw	6354	22	7.94	2,093	Douglas Creek
Douglas Creek	6354	22	5.05	1,339	White River
Brush Creek	6356	23	14.0	4,393	E. Douglas Creek
Deer Canyon	6356	23	1.2	470	Brush Creek
Dark Canyon	6356	23	0.9	339	Brush Creek
Wild Horse Canyon	6356	23	1.73	707	E. Douglas Creek
Big Rock Draw	6356	23	0.83	489	E. Douglas Creek
Trail Canyon	6356	23	12.3	3,854	E. Douglas Creek
Slide Canyon	6356	23	0.71	387	Trail Canyon
E. Douglas Creek	06356/6354	23	21.6	7,537	Douglas Creek
Brushy Point Draw	6356	23	9.45	4,630	E. Douglas Creek
W. Dry Lake Canyon	6356	23	9.42	3,834	E. Douglas Creek
Pollack Canyon	06356/6354	23	14.7	4,818	E. Douglas Creek
W. Douglas Creek	06356/6354	23	17.4	4,166	Douglas Creek
White Coyote Draw	06356/6354	23	3.19	651	Douglas Creek
New Mexico Draw	6356	23	4.04	1,237	E. Douglas Creek
Little Indian	6356	23	2.14	852	Douglas Creek
Cathedral Creek	6356	23	0.086	48	E. Douglas Creek

All of the East Douglas (06356) Allotment and a small portion of the Bull Draw (6354) Allotment fall within stream segment 23 of the White River Basin. Stream segment 23 of the White River Basin is made up of the mainstem of East Douglas Creek and West Douglas Creek, including all tributaries, from their source to their confluence.

The Bull Draw (06354) allotment is nearly all situated within stream segment 22 of the White River Basin. Stream segment 22 is defined as all tributaries to the White River, including all wetlands, lakes and reservoirs, from a point immediately above the confluence with Douglas Creek to the Colorado/Utah boarder, except for specific listings in segment 23.

A review of the Colorado's 1989 Nonpoint Source Assessment Report (plus updates), the 305(b) report, the 303(d) list, the White River Resource Area RMP, and the Unified Watershed Assessment was done to see if any water quality concerns have been identified. It should be noted that Douglas Creek has been listed on the states Monitoring and Evaluation list (M&E List) for sediment impairment. In addition, the White River is also listed on the states M&E List from Douglas Creek to the state line for sediment impairments. The White River ROD/RMP has listed Douglas Creek as not meeting state water quality standards for both suspended sediment and salinity.

Stream segment 22 of the White River basin has been classified as "Use Protected". Beneficial uses for stream segment 22 are as follows: Warm Aquatic Life 2, Recreation 1b, and Agriculture. The antidegredation review requirements in the Antidegredation Rule are not applicable to waters designated use-protected. For those waters, only the protection specified in each reach will apply. Minimum standards for four parameters have been listed, these parameters are: dissolved oxygen = 5.0 mg/l, pH = 6.5 - 9.0, Fecal Coliform = 325/100 ml, and 205/100 ml E. coli.

Stream segment 23 of the White River Basin has not been identified as "Use Protected". Thus, the Antidegredation review requirements in the Antidegredation Rule are in effect for this stream segment, meaning no further water quality degradation is allowable that would interfere with or become harmful to the designated uses. The state has classified stream segment 23 as being beneficial for the following uses: Cold Aquatic Life 1, Recreation 1a, Water supply, and Agriculture. Minimum standards for four parameters have been listed, these parameters are: dissolved oxygen = 6.0 mg/l, pH = 6.5 - 9.0, Fecal Coliform = 200/100 ml, and 126/100 ml E. coli.

Environmental Consequences of the Proposed Action Alternative: Under the proposed action alternative A, effective grazing AUMs will increase from current use. However, the number of permitted AUMs under Alternative A will be well below the calculated value of available AUMs within the allotment boundaries. Regardless, increased grazing will contribute to reductions in litter accumulation and vegetal cover. As a result, soils may become increasingly vulnerable to erosional processes elevating sediment production to lower reaches of the affected watersheds. In addition, increased livestock numbers in riparian areas may deteriorate the health of riparian communities. Deteriorating riparian communities will limit the ability of the system to anchor stream banks, and maintain functional channel morphologic conditions in which sediment supply is in balance with flow characteristics.

However, with current grazing practices and in spite of recent drought conditions, most upland water sheds are in good health (field observation 2005) and the majority of riparian communities within allotment boundaries are highly vigorous and properly functioning. Only two water gaps exist on East Douglas Creek giving livestock minimal access to the stream and riparian community. Both water gaps are located below the confluence with Cathedral Creek. Most of the remaining portion of East Douglas Creek and its associated riparian communities are isolated from direct livestock impacts due to the incised nature of the valley bottom (~30' of incision). In addition, consistent monitoring (photo points) along E. Douglas Creek reveals a recovering morphologic system in which an unstable F5 Rosgen channel type has transitioned or is transitioning towards a more stable C5 Rosgen channel type consisting of functional point bars and floodplains which dissipate energy and help keep a balance between sediment production and water supply. Given the existing stream channel morphology (recovering) and healthy riparian community of E. Douglas Creek with current grazing and drought, adverse impacts associated with Alternative A are not anticipated.

Environmental Consequences of the Continuation of Current Management Alternative: Potential adverse environmental impacts associated with the current grazing management plan mirror those of alternative A. However, with current management the number of livestock is reduced thus reducing the severity of the potential impacts associated with grazing.

Environmental Consequences of the No Action Alternative: No adverse environmental impacts would be expected from the no-grazing alternative.

Mitigation: Compliance monitoring for vegetation improvement would help identify if additional actions were needed to comply with the *Clean Water Act*. In addition, continued monitoring of stream channel morphology (Rosgen survey data) will be essential to evaluate the impacts of increased livestock numbers on E. Douglas Creek and its tributaries. If necessary, additional structures will be utilized to minimize disturbance to stream banks/channel and riparian areas within the allotment boundaries (e.g. Brush Creek).

Finding on the Public Land Health Standard for water quality: Currently, the White River ROD/RMP has listed Douglas Creek as not meeting state water quality standards for both suspended sediment and salinity. With implementation of the proposed grazing management plan and suggested mitigation, sedimentation rates from East Douglas Creek and its tributaries will continue to decrease. As a result, Douglas Creek will continue to move towards meeting the standards.

WETLANDS AND RIPARIAN ZONES (includes a finding on Standard 2)

Affected Environment: Riparian systems occur on East Douglas, West Douglas, and Wild Horse and Brush Creeks. East Douglas is only accessible by two water gaps which allow access of livestock to water. West Douglas riparian systems are located within relatively wide valley bottoms (200-600 yards). The upper terraces of these valleys are composed of sagebrush, greasewood, western wheatgrass and annual grasses and forbs. The riparian habitat is located

within incised channels of these valley bottoms. Plant composition within the riparian zone is coyote willow, tamarisk, cattails, carex and juncus. The stream channels are confined by incised channel banks, have low stream gradients, meandering channel and have channel materials composed of silt clay bed materials. These streams are in proper functioning condition with an upward trend. These streams are dependant on coyote willow and carex/juncus plant communities for streambank stability. All of these streams have beaver which subsist even when the channel and their ponds are dry. Suitable habitat for willow growth is limited to the area between the incised channel banks, which limits forage and dam building materials for the beaver. Once willow stocks are depleted, beaver abandon these stretches of the stream to inhabit suitable habitat either upstream or downstream.

Wild Horse canyon is a tributary to East Douglas Creek. The upper reach from the spring to the terrain break is not functioning although riparian obligate species are present. In this reach a reservoir was constructed in the 1960's without authorization from the BLM. The spillway was not built to handle constant perennial flows and as a result the dam structure was cut away. This lowered the base of the stream and caused down-cutting above and below the reservoir. This has been aggravated by livestock which concentrate in the area. There are two beaver dams in the upper reach constructed of aspen and holding back sediment approximately 10 feet deep. Below the upper terrace the stream is high gradient and has little opportunity for development of riparian vegetation. This reach can be considered as functioning. Livestock use along Wild Horse canyon is limited to the month of August.

Brush creek is a perennial stream which is tributary to East Douglas Creek. The upper reach is an incised gully with remnants of riparian vegetation. The upper reach is functioning at risk. In the fall of 2005 a BLM crew placed timber barriers in the incised gulley to prevent livestock from traveling up and down the channel. In the min-1990s BLM planted coyote willows along the channel. These cuttings survived for several years but have totally died out. The lower reaches go through heavily timbered stands of Engelmann spruce, Douglas-fir and Sub-alpine fir. These reaches do not have developed riparian vegetation because of the shading by the trees. Large woody debris maintains stability in these lower reaches.

Environmental Consequences of the Proposed Action Alternative A and B the Current Management Alternative: These two alternatives were grouped together as the impacts to management would vary only slightly. East Douglas would remain unchanged with livestock only having access via the water gaps. West Douglas Creek, riparian area is physically limited by the incised channels and beaver ponds which act as enclosures. These areas continue to improve and develop. Where livestock do have access to the stream channel, livestock use is localized and heavy. Riparian habitat is expected to continue to improve in terms of woody composition, and channel stability.

The upper reach of Wild Horse Canyon is not expected to develop appreciable riparian vegetation over the next 10 years. Livestock grazing would be limited to the month of August. Although range conditions and forage production have increased appreciably, the incised nature of the drainage will require several years for the banks to reach stabile gradient and riparian vegetation to stabilize the channel. Beaver have used all the available material and will have to abandon this area, the dams will fail and gullies incise. Livestock use of the area will delay

recovery but may not appreciably hinder the mechanical processes that need to take place in order to make this stream functioning.

The upper reach of Brush Creek is expected to develop significant riparian vegetation over the next 10 years. Livestock grazing would be limited to the month of September. The quantity of forage on the uplands has increased significantly decreasing the amount of time that livestock are loitering in the bottoms. The banks of the stream are increasing in vegetation and soil stability which are expected to expand and contribute to channel stability. This change may be very rapid and there is the possibility of a classification of functioning, within 10 years.

Environmental Consequences of the No Action Alternative: In comparison to the above discussion, the water gaps in East Douglas creek would improve with increased bank stability on the access side of the creek. West Douglas creek would show improvement on the localized areas which have access to livestock. Wild Horse canyon would show improvements in bank stability, the beaver dams would still blow out and a classification of functioning would take greater than 10 years. Along Brush and Wild Horse Creeks, with loss of a grazing permittee to share in the role of noxious weed treatment, and likely inability of BLM to maintain current treatment levels, noxious weeds are expected to dominate the riparian plant communities decreasing soil stability and increasing down-cutting and stream-bank failures. In particular Canada thistle and houndstongue are expected to dominate riparian communities.

Mitigation: Riparian Function Monitoring would be used to document changes in stream channels and riparian vegetation. Continue monitoring and evaluation of the effectiveness of the project (Brush Creek treatments) combined with follow-up work (if successful) planned for the 2006 field season and should continue throughout the life of the grazing permit.

Finding on the Public Land Health Standard for riparian systems: East and West Douglas creeks are not appreciably affected by any of the alternatives because of the limitations to livestock from using these creeks. The upper reach of Wild Horse Canyon is not expected to improve radically with or without livestock use. Brush Creek is expected to become functioning within the next 10 years. The table below shows the expected changes in riparian habitats.

CONDITION OF STREAM BY STREAM MILES

	Current Sit	uation	Alternative A	and B	Alternative C		
	tioning	Not ctioning	ctioning Not ctioning		Functioning	Not etioning	
STREAM SEGMENT	Funci	Fund	Func	Func	Func] Func	
East & West Douglas Ck	2.5	0	2.5	0	2.5	0	
Wild Horse	1.5	0.125	1.5	0.125	1.5	0.125	
Brush Ck	2.25	0.75*	2.50	0.25*	3.0	0	
Totals	6.25	0.875	6.5	0.375	7	0.125	

^{*}Stretch in Brush Creek is actually functioning at risk.

CRITICAL ELEMENTS NOT PRESENT OR NOT AFFECTED:

No flood plains, prime and unique farmlands, Wilderness, or Wild and Scenic Rivers, threatened, endangered or sensitive plants exist within the area affected by the proposed action. For threatened, endangered and sensitive plant species Public Land Health Standard is not applicable since neither the proposed nor the no-action alternative would have any influence on populations of, or habitats potentially occupied by, special status plants. There are also no Native American religious or environmental justice concerns associated with the proposed action.

NON-CRITICAL ELEMENTS

The following elements **must** be addressed due to the involvement of Standards for Public Land Health:

SOILS (includes a finding on Standard 1)

Affected Environment: The table below depicts the soils/soil associations by ecological sites and the acres of each type within the proposed grazing permit renewal for the Bull Draw (06354) and East Douglas Creek (06356) Allotments. A detailed description of each of the soils can be found in the Order III, Soil Survey of Rio Blanco and Garfield Counties, Colorado, available at the BLM White River Field Office.

SOIL ASSOCIATIONS BY ECOLOGICAL SITES AND ACRES OF EACH TYPE WITHIN THE PROPOSED GRAZING PERMIT RENEWAL

Data	Soil Unit	Ecological Site	BLM Acres	Slope	Depth to Bedrock	Salinity	Run Off Potential	Erosion Potential
4	Absher loam,3- 8%slopes	Alkaline Slopes	12.418	0-3	>60	4-8	Medium	Moderate to High
5	Badland	None	74.203	50-100	0-10	2-4	Medium	Very High
9	Blakabin-Rhone-Waybe complex,5-50%slopes	Brushy Loam/ Brushy Loam / Dry Exposure	3356.571	5-50	>60	<2	Medium to Rapid	Moderate to very high
10	Blazon, moist-Rentsac Complex,6-65%slopes	PJ woodlands	6129.968	6-65	10-20	2-4	Rapid	Moderate to very high
13	Bulkley channery silty clay loam,5-30%sclopes	PJ woodlands	471.319	5-30	40-60	<2	Rapid	High
13	Caballo very channery loam,40-80%slopes	Douglas-Fir woodlands	1623.214	30-75	>60	<2	Medium	Very High
15	Castner channery loam	PJ woodlands	198.427	5-50	10-20	<2	Medium to Rapid	Moderate to very high
27	Cryorthents-Rock outcrop	Douglas-Fir woodland	295.993	30-75	0	<2	Medium	Very High
36	Glendive fine sandy loam	Foothills Swale	1.808	2-4	>60	2-4	Slow	Slight
41	Havre loam	Foothill Swale	496.319	0-4	>60	<4	Medium	Slight
48	Hesperus Empedrado, moist Pagoda complex	Brushy Loam/Brushy Loam	224.751	35-55	>60	<2	Medium to Rapid	Moderate to Very High
47	Hesperus-Empedrado, moist Pagoda complex	Brushy Loam/Brushy Loam	163.312	5-35	>60	<2	Medium to Rapid	Moderate to Very High
43	Irigul-Parachute complex	Loamy Slopes/ Mountain Loam	334.819	5-30	10-20	<2	Rapid	Slight to High

SOIL ASSOCIATIONS BY ECOLOGICAL SITES AND ACRES OF EACH TYPE WITHIN THE PROPOSED GRAZING PERMIT RENEWAL

Data	Soil Unit	Ecological Site	BLM Acres	Slope	Depth to Bedrock	Salinity	Run Off Potential	Erosion Potential
47	Kobar silty clay loams	Deep Clay Loam	3.175	0-3	>60	<2	Medium	Slight
53	Moyerson stony clay loam	Clayey Slopes	241.330	15-65	10-20	2-4	Rapid	Very High
52	Northwater-Adel complex	Quaking Aspen	17.43	5-50	>60	<2	Low	Low
58	Parachute Loam	Brushy Loam	333.699	25-75	>60	<2	Medium	Very High
55	Parachute-Irigul complex	Mountain Loam/ Loamy Slopes	327.405	5-30	>60	<2	Rapid	Slight to High
56	Parachute-Irigul-Rhone assoc	Brushy Loam/ Brushy Loam/ Loamy Slopes	221.220	25-50	>60	<2	Rapid	Slight to High
57	Parachute-Rhone loams	Mountain Loam/ Mountain Loam	68.043	5-30	>60	<2	Rapid	Slight to High
60	Patent loam	Rolling Loam	10.586	0-3	>60	<2	Medium	High
61	Patent loam	Rolling Loam	227.766	3-8	>60	<2	Medium	High
64	Piceance fine sandy loam	Rolling Loam	3.781	5-15	20-40	<2	Medium	Moderate to High
69	Razorba channery sandy loam	Spruce-Fir woodland	373.807	30-75	>60	<2	Medium	Very High
70	Redcreek-Rentsac complex	PJ woodlands	1409.594	5-30	10-20	<2	Very High	Moderate to high
73	Rentsac channery loam	PJ woodlands	150.063	5-50	10-20	<2	Rapid	Moderate to Very High
74	Rentsac-Moyerson- Rock Outcrop, complex	PJ Woodlands /Clayey Slopes	13130.236	5-65	10-20	<2	Medium	Moderate to Very High
76	Rhone loam	Brushy Loam	392.029	30-75	40-60	<2	Medium	Very High
78	Rock Outcrop	None	56.359	50-100	0		Very High	Slight
61	Rock outcrop- Torriorthents	None	39.908	15-90	0		Rapid	Very High
82	Silas loam	Mountain Swale	3.5	0-8	>60	<2	Low	Moderate
63	Silas loam	Mountain Swale	6.979	1-12	>60	<2	Low	Moderate
87	Starman-Vandamore complex	Dry Exposure/Dry Exposure	70.216	5-40	10-20	<2	High	Moderate
89	Tisworth fine sandy loam	Alkaline Slopes	376.742	0-5	>60	>4	Rapid	Moderate
90	Torrifluvents, gullied	None	164.66	0-5	>60		Rapid	Very High
91	Torriorthents-Rock Outcrop, complex	Stoney Foothills	1729.437	15-90	10-20		Rapid	Very High
71	Utso-Rock outcrop Complex	Douglas-Fir woodlands	872.755	40-90	10-20		Rapid	Very High
96	Veatch channery loam	Loamy Slopes	633.376	12-50	20-40	<2	Medium	Moderate to Very High
		Totals:	34247.22					

Soils that have sites rated as early seral plant communities not meeting public land health standards do not have sufficient diversity and/or cover of native plant species to provide effective ground cover to prevent overland flow, runoff, and general soil degradation. These soils are experiencing a certain degree of pedestaling, minor expression of rills, and some areas have active gully erosion. Erosion is most evident within the Alkaline Slopes range sites found in the bottoms of the draws along East and West Douglas creeks. These soils are in the drainage bottoms where livestock tend to congregate. These are mid-seral plant communities that are experiencing some improvement in plant community development and cover.

SOILS NOT MEETING THE LAND HEALTH STANDARD

Soil #	Soil Name	Ecological site	Slope	Acres
4	Absher loam	Alkaline Slopes	0-3%	12
89	Tisworth fine sandy loam	Alkaline Slopes	0-5%slopes	377
36	Glendive fine sandy loam	Foothills Swale	2-4%	2

Environmental Consequences of the Proposed Action Alternative A: All 33,610 acres of fragile soils areas, which are protected from development impacts by controlled surface use (CSU) CSU-1 in the current White River ROD/RMP, would be available for grazing. The proposed grazing program and livestock numbers which have been using the allotment since 1998 have been shown to be increasing vegetation cover which is requisite to stabilizing soils and decreasing erosion. Improvement in soils not meeting the standards is expected, with 274 additional acres meeting the standard and 117 acres not meeting standard over a 10 year period.

Environmental Consequences of the Continuation of Current Management Alternative: Impacts to soils would be similar to the proposed action with some acceleration in the time period or acres of acres meeting the standard, resulting from a 35% decrease in livestock. Improvement in soils not meeting the standards is expected, with 293 additional acres meeting the standard and 98 acres not meeting standard over a 10 year period.

Environmental Consequences of the No Action Alternative: With no livestock grazing, improvement of soils not meeting standards is expected to decrease by 352 acres . 39 acres of identified soils would continue to not meeting the standards as a result of cheatgrass invasion and raw gullies.

Mitigation: Adhere to the soil management objective established in the White River ROD/RMP, which is to prevent impairment of soil productivity due to accelerated erosion and physical or chemical degradation resulting from surface use activities. Management actions support the goals provided as indicators in Standard One of the Standards for Public Land Health.

Finding on the Public Land Health Standard for upland soils: This standard state: upland soils exhibit infiltration and permeability rates that are appropriate to soil type, climate, land form, and geologic processes. Adequate soils infiltration and permeability allows for the accumulation of soil moisture necessary for optimal plant growth and vigor, and minimizes surface runoff. Indicators of this standard are: expression of rills and soil pedestals is minimal, evidence of actively-eroding gullies (incised channels) is minimal, canopy and ground cover is appropriate, with litter accumulating in place and is not sorted by normal overland water flow, there is appropriate organic matter in soil, there is diversity of plant species with a variety of root depth, upland swales have vegetation cover or density greater than that of adjacent uplands, and there are vigorous, desirable plants.

STANDARDS FOR PUBLIC LAND HEALTH

	Current Situation			roposed tion ative A	Renew the Grazing Permit without modification Alternative B		No Grazing Alternative C		
Standard	Achieving or Moving Towards Achieving	Not Achieving	Causative Factors	Achieving or Moving Towards Achieving	Not Achieving	Achieving or Moving Towards Achieving	Not Achieving	Achieving or Moving Towards Achieving	Not Achieving
#1-Upland	l Soils by (Combined P	astures						
East Douglas Cr. & Bull Draw	43,785 acres	391 acres	Livestock Grazing	44,059 acres	117 acres	44,078 acres	98 acres	44,137 acres	39 acres

VEGETATION (includes a finding on Standard 3)

Affected Environment: The following table lists plant communities and the dominant plant species for the ecological sites or woodland types on the allotment as associated with the proposed action. Forb species, though important to the diversity of a community and comprising up to 25 to 30% of the composition of several of the plant communities listed, are not presented in the following table because they generally are not significant contributors to the general appearance of the community.

PLANT COMMUNITIES AND DOMINANT PLANT SPECIES FOR ECOLOGICAL SITES OR WOODLAND TYPES

ECOLOGICAL SITE / WOODLAND TYPE	PLANT COMMUNITY APPEARANCE	PREDOMINANT PLANT SPECIES IN THE PLANT COMMUNITY
Alkaline Slopes	Sagebrush/grass Shrubland	Wyoming big sagebrush, winterfat, low rabbitbrush, wheat grasses, Indian rice grass, squirreltail
Brushy Loam	Deciduous Shrub/grass Shrubland	Serviceberry, oakbrush, snowberry, mountain brome, slender wheatgrass, western wheatgrass, Letterman and Columbia needle grasses
Clayey Foothills	Grass/Open Shrub Shrubland	Western wheatgrass, mutton grass, Indian rice grass, squirreltail, June grass, Wyoming big sagebrush, black sagebrush
Clayey Saltdesert	Salt Desert Shrubland	Gardner saltbush, shadscale, mat saltbush, galleta, Salina wildrye, squirreltail, Indian rice grass
Clayey Slopes	Grassland	Salina wildrye, mutton grass, western wheatgrass, June grass, squirreltail, shadscale
Deep Clay Loam	Grass/Open Shrub Shrubland	Western wheatgrass, slender wheatgrass, mutton grass, squirreltail, June grass, Letterman and Columbia needle grasses, mountain big sagebrush
Deep Loam	Grassland	Bluebunch wheatgrass, mottongrass, needle-and-thread, western wheatgrass, slender wheatgrass, big sagebrush, serviceberry, snowberry.
Dry Exposure	Grassland	Beardless bluebunch wheatgrass, needle-and-thread, June grass, Indian rice grass, fringed sage, buckwheats
Foothill Swale	Grass/Open Shrub Shrubland	Basin wildrye, western wheatgrass, slender wheatgrass, streambank wheatgrass, Indian rice grass, Nevada bluegrass, basin big sagebrush, fourwing saltbush, rubber rabbitbrush

PLANT COMMUNITIES AND DOMINANT PLANT SPECIES FOR ECOLOGICAL SITES OR WOODLAND TYPES

ECOLOGICAL SITE / WOODLAND TYPE	PLANT COMMUNITY APPEARANCE	PREDOMINANT PLANT SPECIES IN THE PLANT COMMUNITY
Loamy Saltdesert	Grass/Salt Desert Shrubland	Needle-and-thread, galleta, Sandberg bluegrass, squirreltail, Indian rice grass, Gardner saltbush, shadscale, winterfat, horsebrush
Loamy Slopes	Mix Shrub/grass Shrubland	Mountain mahogany, bitterbrush, serviceberry, mountain big sagebrush, beardless bluebunch wheatgrass, western wheatgrass, June grass, Indian rice grass
Mountain Loam	Grass/Open Shrub Shrubland	Mountain brome, slender wheatgrass, western wheatgrass, Letterman and Columbia needle grasses, mountain big sagebrush, bitterbrush, low rabbitbrush,
Mountain Swale	Grass/Open Shrub Shrubland	Basin wildrye, slender wheatgrass, western wheatgrass, Letterman and Columbia needle grasses, sedges, rushes, mountain big sagebrush, rubber rabbitbrush, snowberry,
Rolling Loam	Sagebrush/grass Shrubland	Wyoming big sagebrush, winterfat, low rabbitbrush, horsebrush, bitterbrush, western wheat grass, Indian rice grass, squirreltail, June grass, Nevada and Sandberg bluegrass
Saltdesert Breaks	Salt Desert Shrubland	Galleta, salina wildrye, squirreltail, Indian rice grass, needle-and-thread, shadscale, winterfat
Saltdesert Overflow	Grassland	Alkali sacaton, galleta, Indian ricegrass, squirreltail, sand dropseed, fourwing saltbush, rubber rabbitbrush, greasewood.
Salt Meadow	Grassland	Inland salt grass, western wheatgrass, slender wheatgrass, fourwing saltbush, rubber rabbitbrush
Sandy Saltdesert	Grass/Salt Desert Shrubland	Needle-and-thread, Indian rice grass, sand dropseed, Sandberg bluegrass, squirreltail, galleta, shadscale, winterfat, horsebrush
Semidesert Clay Loam	Grass/Sagebrush Shrubland	Western wheatgrass, squirreltail, galleta, Salina wildrye, Indian rice grass, Wyoming big sagebrush, fourwing saltbush, shadscale
Semidesert Loam	Grass/Sagebrush Shrubland	Needle-and-thread, western wheatgrass, galleta, Sandberg bluegrass, squirreltail, Indian rice grass, sand dropseed, Wyoming big sagebrush, fourwing saltbush, winterfat
Stony Foothills	Grass/Open Shrub Shrubland	Beardless bluebunch wheatgrass, western wheatgrass, needle-and-thread, June grass, Indian rice grass, fringed sage, Wyoming big sagebrush, black sage, serviceberry, pinyon and juniper
Stoney Loam	Grass/Shrubland	Bluebunch wheatgrass, Indian ricegrass, needle grasses, mottongrass, western wheatgrass, serviceberry, bitterbrush, bog sagebrush, snowberry
Pinyon/Juniper	Pinyon/Juniper Woodland	Pinyon pine, Utah juniper, mountain mahogany, bitterbrush, serviceberry, Wyoming big sagebrush, beardless bluebunch wheatgrass, western wheatgrass, June grass, Indian rice grass, mutton grass

In each allotment vegetation analysis there is an analysis of site similarity, trend, objectives and carrying capacity for each plant community. Each pasture summary table shows the seral rating system used by BLM to rate rangeland plant communities in comparison to the potential natural plant community for a particular rangeland site. Trend ratings are a determination of the current plant community's developmental direction from the climax community range site is predominately a pinyon/juniper vegetation association and was assigned a PNC rating.

RANGE SITE SIMILARITY AND TREND RATINGS AND VEGETATION OBJECTIVES

Seral Rating	% Similarity to the Potential Natural Plant Community (PNC)		
Potential Natural community (PNC)	76-100% composition of species in the PNC		
Late-Seral	51-75% composition of species in the PNC		

RANGE SITE SIMILARITY AND TREND RATINGS AND VEGETATION OBJECTIVES

Seral Rating	% Similarity to the Potential Natural Plant Community (PNC)		
Mid-Seral	26-50% composition of species in the PNC		
Early-Seral	0-25% composition of species in the PNC		
Trend Rating	Direction of Change from the Potential Plant Community		
Ι	Improving Condition		
S	Community Stable or No Change Evident		
D	Community Plant Composition Declining from Potential		
Vegetation Objectives	Goal for Current Plant Community		
Maintain	Current Management or Impacts are acceptable		
Improve	Establish Goals for Vegetation Management		
None	Plant Community not Conducive to Management		

<u>Bull Draw Allotment:</u> These estimates are based upon professional judgments of the Rangeland Management Specialist trained in the use of the rating system. Badlands, Douglas-fir, dry exposure and rock outcrop are not considered as range sites and are designated as Not Applicable (NA) for condition and trend throughout the following analysis.

The Bull Draw allotment is managed along with the East Douglas Creek allotment. The East Douglas Creek allotment is located south and east of Bull Draw. Bull Draw contains 9,523 acres of public land and 20 acres of private land. Elevations range from 6,100 to 7,100 feet. Plant communities include sage/wheatgrass bottoms, greasewood bottoms, hillside bunchgrass, sagebrush flats and pinyon juniper ridges. Noxious weeds are rarely found on this pasture. Within the Bull Draw allotment forage plant growth in the bottoms is initiated approximately April 15, and ends July 10 with dependable growth ending June 10th.

The following tables show an estimate of the public land acreage falling within one of the seral ratings for each range site on each allotment and the vegetation trend.

BULL DRAW ANALYSIS

Ecological Site	Condition	Trend	Acres	Objective	Estimated Acres/AUM	BLM Estimated AUMs
Alkaline Slopes	Early Seral	I	203	M or I	25	8
Alkaline Slopes	Mid Seral	I	200	M	13	16
Clayey Slopes	Late Seral	S	3,147	M	13	243
Foothill Swale	Mid Seral	I	125	I	10	13
Foothill Swale	Mid Seral	I	28	M	5	6
Pinyon/Juniper	Mature	S	3,234	M	25	129

BULL DRAW ANALYSIS

Ecological Site	Condition	Trend	Acres	Objective	Estimated Acres/AUM	BLM Estimated AUMs
Rock Outcrop	NA	NA	1,505	none	0	0
Stony Foothills	PNC	S	965	none	0	0
Torrifluvents	Mid Seral	I	119	none	0	0
TOTALS			9526			415

Analysis of the Bull Draw allotment identified 33% of the pasture as in late seral condition. These range sites are on uplands intermingled with the pinyon/juniper and rock outcrops, which in total make up 83% of the acreage and carrying capacity. Non-productive range sites make up 27% of the pasture (by acreage). Approximately 5% of this pasture is in mid-seral. These plant communities are located in the bottoms of Bull, Little Bull and Little Indian drainages, and are showing improvement in composition with cheatgrass being displaced by sand dropseed and western wheatgrass. Mid–seral conditions are the result of past grazing management. Specifically the allotment *was* overstocked, and grazed during the growing season, which did not allow for the growth requirements of the forage plants. A grazing program was initiated in 1990, which decreased livestock numbers and the period of use. Throughout the allotment, vegetation condition has been improving. An analysis of the carrying capacity showed the potential for increased livestock use based on the proposed preference of 297 AUMs and the estimated carrying capacity of 415 AUMs.

East Douglas Creek Allotment:

The East Douglas Creek allotment is located south and west of East Douglas creek and East of West Douglas Creek. East Douglas Creek allotment contains 34,247 acres of public land and 100 acres of private land. Elevations range from 6100 to 8400 feet. Plant communities include sage/wheatgrass bottoms, greasewood bottoms, hillside bunchgrass, sagebrush flats and pinyon juniper ridges, aspen, subalpine fir and Douglas-fir.

The following tables show an estimate of the public land acreage falling within one of the seral ratings for each range site on each allotment and the vegetation trend.

EAST DOUGLAS CREEK ANALYSIS

Ecological Site	BLM Acres	Condition	Trend	Objective	Estimated Acres / AUM	BLM Estimated AUMs
Alkaline Slopes	12.418	Mid Seral	I	I	25	0
Badland	74.203	None	S	None	0	0
Brushy Loam/Brushy Loam/Dry Exposure	3356.571	Late Seral	I	M	25	134
PJ woodlands	6129.968	Mature	S	M	25	245
PJ woodlands	471.319	Mature	S	M	25	19
Douglas-Fir woodlands	1623.214	Mature	S	M	20	81

EAST DOUGLAS CREEK ANALYSIS

Ecological Site	BLM Acres	Condition	Trend	Objective	Estimated Acres / AUM	BLM Estimated AUMs
PJ woodlands	198.427	Mature	S	M	25	AUNIS 8
Douglas-Fir woodland	295.993	Mature	S	M	20	15
Foothills Swale	1.808	Mid Seral	I	M	7	0
Foothill Swale	496.319	Mid Seral	I	M	7	71
Brushy Loam/Brushy Loam	224.751	Late Seral	I	M	12	19
Brushy Loam/Brushy Loam	163.312	Late Seral	I	M	12	14
Loamy Slopes/Mountain Loam	334.819	Mid Seral	I	I	5	67
Deep Clay Loam	3.175	Late Seral	S	M	4	1
Clayey Slopes	241.330	Late Seral	S	M	10	24
Quaking Aspen	17.43	Late Seral	S	M	4	4
Brushy Loam	333.699	Late Seral	S	M	12	28
Mountain Loam/Loamy Slopes	327.405	Late Seral	S	M	7	47
Brushy Loam/Brushy Loam/Loamy Slopes	221.220	Late Seral	S	M	12	18
Mountain Loam/Mountain Loam	68.043	Late Seral	S	M	7	10
Rolling Loam	10.586	Mid Seral	I	Ι	6	2
Rolling Loam	227.766	Mid Seral	I	I	6	38
Rolling Loam	3.781	Mid Seral	I	I	6	1
Spruce-Fir woodland	373.807	Late Seral	S	M	20	19
PJ woodlands	1409.594	Mature	I	M	25	56
PJ woodlands	150.063	Mature	I	M	25	6
PJ Woodlands/Clayey Slopes	3100	Mature and Late Seral	S	M	10	310
PJ Woodlands/Clayey Slopes	10030.236	Mature	S	M	10	1003
Brushy Loam	392.029	Mid Seral	I	M	12	33
Rock Outcrop	56.359	None	N/A	None	0	0
Rock Outcrop	39.908	None	N/A	None	0	0
Mountain Swale	3.5	Late Seral	S	M	10	0
Mountain Swale	6.979	Late Seral	S	M	10	1
Dry Exposure/Dry Exposure	70.216	Mid Seral	I	M	10	7
Alkaline Slopes	376.742	Mid Seral	I	I	18	21
Torrifluvent	164.66	None	N/A	None	0	0
Stoney Foothills	1729.437	Late Seral	S	M	0	0
Douglas-Fir woodlands	872.755	Mature	S	M	0	0
Loamy Slopes	633.376	Late Seral	S	M	5	127
Total	34247.22				14	2429

Analysis of the East Douglas Creek allotment identified 8572 acres 23% of the pasture as in late seral condition. These range sites are on uplands intermingled with the pinyon/juniper and rock outcrops, which in total make up 63% of the acreage and carrying capacity. Non-productive

range sites make up 12% of the pasture (by acreage). Approximately 3% of this pasture is in mid-seral. These plant communities are located in the bottoms of East Douglas and West Douglas creeks, and are showing improvement in composition with cheatgrass being displaced by sand dropseed and western wheatgrass. Mid-seral conditions are the result of past grazing management. Specifically the allotment *was* overstocked, and grazed during the growing season, which did not allow for the growth requirements of the forage plants. A grazing program was initiated in 1990, which decreased livestock numbers and the period of use. Throughout the allotment, vegetation condition has been improving. An analysis of the carrying capacity showed the potential for increased livestock use based on the proposed preference (Alt. A) of 1,805 AUMs and the estimated carrying capacity of 2,429 AUMs.

Analysis of Standards for Public Land Health

Table 3-6, provides information on vegetation communities not meeting the standards for vegetation health. 6,404 acres of rangeland communities were determined to not be meeting public standards based on a pasture by pasture analysis. Vegetation associations in early-seral condition or declining trend were determined to not be meeting the vegetation health standard based on the indicators listed below.

- Noxious weeds and undesirable species are minimal in the overall plant community.
 - Condition: Within some West Douglas Herd Area plant communities' cheatgrass dominates.
- Native plant and animal communities are spatially distributed across the landscape with a
 density, composition, and frequency of species suitable to ensure reproductive capability
 and sustainability.
 - Condition: Key species are a minor component in these communities and do not ensure reproductive capability and sustainability.
 - Trend: Key species are in decline and do not ensure reproductive capability and sustainability.
- Plants and animals are present in mixed age classes sufficient to sustain recruitment and mortality fluctuations.
 - Condition: These communities do not present a mixed age class and do not sustain recruitment and mortality fluctuations of key species.
 - Trend: These communities are not sustaining recruitment and mortality fluctuations of key species.
- Photosynthetic activity is evident throughout the growing season.
 - Condition: The dominance of cheatgrass removes soil moisture abbreviating desired plant species growth during the growing season.
 - Trend: Increasing cheatgrass and decreasing litter volumes are decreasing available soil moisture abbreviating desired plant species growth during the growing season.
- Appropriate plant litter accumulates and is evenly distributed across the landscape.
 - o Condition: Adequate litter is lacking.
 - o Trend: Cover of litter is declining.

ACRES OF VEGETATION ACHIEVING OR NOT ACHIEVING THE STANDARDS FOR PUBLIC LAND HEALTH:

Current Situation							
Standard Vegetation Communities by Pasture	Acres Achieving or moving toward Achieving Standards	Acres Not Achieving Standards	Causative Factor				
East Douglas Creek	33859	388	Livestock Grazing				
Bull Draw Allotment	9526	403	Livestock Grazing				
Total	43381	795					

Non-Rangeland sites which make up 28,027 acres on both Bull Draw and East Douglas Creek allotments are considered to be meeting the standards.

Environmental Consequences of the Proposed Action Alternative A: Vegetation decisions of the White River ROD/RMP would continue to apply under this alternative. The permitted use for Bull Draw and East Douglas Creek would increase by approximately 30% to 2,400 and 297 respectively. The proposed action will continue to promote grazing at sustainable utilization levels based on current calculated livestock carrying capacities for each pasture. Critical to meeting vegetation rest requirements during the spring period is the movement of livestock elevationally which would allow replenishment of root reserves post grazing use. Vegetation would have adequate opportunity for seed production, replenishment of root reserves, biomass accumulation, and plant propagation. Vegetative residue would be adequate to allow soils to maintain their water holding capability (primarily based on surface litter) and maintain seedling survival necessary to maintain a healthy, reproducing plant community. Vegetation condition is expected to continue with greatest improvement expected in the alkaline slopes range sites along East and West Douglas creeks. Over the next 10 year period the alkaline slopes range site is expected to improve with approximately 100 acres not meeting the standard. Key to management of the rangelands would be the use of monitoring studies to document vegetation use, condition and trend. These studies would be the basis for implementing the vegetation decisions of the White River ROD/RMP, through development of range improvements, determining carrying capacity, modifying periods of use and numbers of livestock.

Environmental Consequences of the Continuation of Current Management Alternative B: The permitted use for Bull Draw and East Douglas Creek would remain unchanged at 1,805 and 187 respectively. Improvement in vegetation condition would occur similarly to alternative A. The decrease in use of alternative A in comparison to alternative B would reasonably occur over a shorter time frame and improve more acres, estimating 10 year period and 80 acres not meeting the standards. Monitoring studies would be used to monitor changes in vegetation use and condition.

Environmental Consequences of the No Action Alternative: Elimination of livestock grazing is expected to increase the rate of recovery of rangeland over the other two alternatives. Under this alternative, forage species would not be grazed and would have optimal opportunity for growth, reproduction and carbohydrate storage. Plant communities would advance toward the climax communities. This would not affect 37,766 acres which are already at climax or late seral. The greatest improvement would be in the bottoms of East and West Douglas creeks

associated with the alkaline slopes range site. Because of austere soil conditions, high clay content and alkaline content, and the presence of cheatgrass this vegetation community may take more that 20 years to develop into a climax community, if at all.

There is expected to be an increase in numbers and acres of area burned with the increase in fine fuels. On the alkaline slopes and Torriorthents sites, fires are expected to damage perennial plants and displace them with cheatgrass and annual mustards. All plant communities would be expected to develop fire intervals that are similar to pre-European settlement

Mitigation: Monitor vegetation in accordance with bureau policy.

Finding on the Public Land Health Standard for plant and animal communities (partial, see also Wildlife, Aquatic and Wildlife, Terrestrial): The areas not meeting the Standards are the mid-seral communities. This is primarily due to considerable composition of the annual invasive cheatgrass combined with the lack of desirable forage species. Most of the other seral communities (mid-PNC) are currently meeting standards and make up the bulk of acres in the allotment. Under reasonable grazing conditions these sites could be expected to show improvement in plant composition and cover. Except in the early seral plant communities that have crossed a threshold, estimated to be 200 acres, implementation of the proposed action will enhance the ability of the rangelands to meet the Standards in the future. The chart below projects the acreage meeting the standard over a ten year period.

FINDING ON THE PUBLIC LAN) HEALTH STANDARD FOR PLANT	COMMUNITIES BY A	CREAGE

Allotment	Alternative A Proposed Action		Alternative B (Existing Permit Schedule)		Alternative C (Eliminate Livestock Grazing)	
	Acres Achieving	Acres Not Achieving	Acres Achieving	Acres Not Achieving	Acres Achieving	Acres Not Achieving
East Douglas	34053	194	34103	144	34150	97
Bull Draw	9726	203	9726	203	9826	103
Totals	43779	397	43829	347	43976	200

WILDLIFE, AQUATIC (includes a finding on Standard 3)

Affected Environment: BLM-administers the upper half of the Brush Creek drainage, a larger perennial tributary of East Douglas Creek. The BLM-administered reaches contribute directly to waters occupied by Colorado River cutthroat trout, a BLM sensitive species. The lower privately-owned reaches of Brush Creek historically and may presently support a population of Colorado River cutthroat trout that displays various degrees of hybridization with introduced rainbow trout. BLM is not aware of information indicating historic occupation of the upper BLM-administered reaches, but at the present time, the Colorado Division of Wildlife does not consider those reaches above the private lands potential habitat, due primarily to limited flow volume and degraded channel character.

The middle reach of Brush Creek (~3500 feet) is located in a broad grassland park at 7800-7900' elevation that is in the early stages of rejuvenation from massive beaver dam failures and a downcutting event that occurred in the middle 1980s. This channel is a moderate gradient (about 3%), but in its present state the channel is overly straight, moderately entrenched, and overwidened. Appropriate floodplains are discontinuous, but tend to support stable, well-established sedge-rush communities and the rate of floodplain development appears to be accelerating. BLM macro-invertebrate sampling in 2005 (analysis not yet received) found higher order stream insects relatively well-represented in these waters. Woody vegetation in or adjacent to the channel is notably absent and belies the former presence of willow or aspen in quantities sufficient to support beaver and their workings. This middle reach and perhaps short adjoining segments of reaches upstream and downstream may hold limited potential for reestablishment of a small, viable fishery once proper functioning conditions are achieved.

The remaining two stream reaches are high-gradient (7-10%) channels situated in spruce-fir forest types, both upstream (4000' channel length @ 7900-8300' elevation) and downstream (7300' channel length @ 7300-7800' elevation) of the park. These reaches are entrenched and, although sparsely vegetated or barren beneath the conifer canopy (i.e., shade suppressed), appear to derive sufficient stability from large woody debris and root wads to prevent further degradation.

Beaver-occupied, willow-dominated aquatic habitats are abundant and well-distributed on those portions of mainstem and East Douglas Creeks encompassed by the allotment. These relatively large systems support discontinuous populations of speckled dace, chorus and leopard frogs, and nesting/brooding waterfowl. It is suspected that, on occasion, a small number of cutthroat trout from upstream populations successfully negotiate the numerous large beaver dams and occupy lower reaches of East Douglas Creek. With the exception of 2 small long-established water-gaps on BLM-administered land in East Douglas, livestock are fenced off of, and have no influence on, these bottomlands. Two parcels of West Douglas Creek (totaling about 1.8 channel miles) are fenced within the Texas Camp pasture. This largely intermittent, somewhat smaller tributary of Douglas Creek supports beaver workings and willow/tamarisk-based habitat inclusions similar in character to East and mainstem Douglas Creeks, but lacks a fish component.

Environmental Consequences of the Proposed Action Alternative A: Increasing authorized livestock use in the Brush Creek pasture would not contribute to recovery of the Brush Creek channel, but due to constraints inherent in this allotment's management, options to modify present patterns of use in this high-elevation pasture are not considered practical.

It is suspected that proposed increases in cattle use (same season of use; 11% increase in pasture-wide intensity) are nominal and would not measurably interfere with present rates of floodplain development and expansion in the middle reach of Brush Creek. In response to increasingly effective floodplain function and vegetation armoring, current trends in improving width: depth ratios should remain intact and would be expected to accelerate--a response that would improve the quality of aquatic habitat for invertebrate forms and fisheries potential by increasing stream depth, decreasing water temperature, and enhancing the structural diversity of the channel. Recent efforts by BLM to hasten rejuvenation processes by placing large woody debris in the channel to deter cattle trailing and protect woody reestablishment in the channel would remain an

effective means of providing substantial impetus for recovery without resorting to expensive and often ineffective fencing. Ultimately, restoring proper functioning condition to at-risk channel segments would reduce sediment delivery, prolong base flows, and provide stable sources for the downstream dissemination of both obligate plants and macroinvertebrates to downstream cutthroat trout fisheries.

Because livestock make little, if any, use of the allotment's mixed conifer types, it is unlikely that channel character in remaining reaches would experience any change under the proposed action.

As proposed, there would be little effective change in livestock-related influences on aquatic habitats associated with West Douglas Creek in the Texas Camp pasture. Although grazing use intensity during the dormant period (fall) and early growing season would increase (~40%), livestock distribution and regrowth opportunities would remain the same. It is likely that with limited access to channel vegetation, those areas where livestock currently concentrate would continue to sustain high levels of use, but no further expansions of that use is anticipated. It is expected that the proposed grazing regimen, as conditioned by existing physical constraints, would remain compatible with progressive long-term improvements in the composition and density of vegetation important for proper functioning of channel features. Increased availability, distribution, and abundance of obligate riparian vegetation (e.g., willow, sedge), as a year-round forage and material base, would promote equilibria in beaver-related occupation and influences (i.e., aquatic habitat development) in West Douglas Creek.

Environmental Consequences of the Continuation of Current Management Alternative: Considering strong beneficial shifts in terrestrial herbaceous composition along the middle reach of Brush Creek since 1998, it is apparent that the timing of use at comparable intensities (i.e., 200-250 cattle, ±11% compared to proposed) was compatible with plant vigor and reproduction needs. Presently, residual riparian growth on floodplain features in this 3/4 mile reach is well represented by obligate herbaceous forms that, where available, are sufficient in height and density to capture and retain sediments carried by spring runoff flows. Full growing season expression (May through August) every year maximizes effective capture of sediments generated from late summer thunderstorm events. Although stream recovery (i.e., morphology and vegetation) has not progressed beyond early stages, the continued presence and expansion of obligate riparian vegetation through this reach, including highly palatable Nebraska sedge, indicates that present use and trampling damage may retard, but does not strongly repress riparian expression and its influence on stream function. Although analysis of recent macroinvertebrate sampling in the middle reach of Brush Creek has not been received, biologists' impressions of desirable caddisfly and stonefly larvae in the samples were favorable and lend further support to notions of improving stream recovery trends (see also discussion in Alternative A above).

Because livestock make little, if any, use of the allotment's mixed conifer types, channel character in the remaining 2.1 miles of Brush Creek is considered a product of heavy shading, steep gradients, and influences from upstream and downstream channel conditions. It is likely that recent patterns of livestock grazing use has had no direct influence on existing channel conditions or processes in these reaches.

Cattle have access to 1.8 miles of the West Douglas channel from October through June, although practical access to bank and floodplain vegetation during the winter and early spring months is limited by vertical incise walls, heavy tamarisk growth, the meandering channel bed, and beaver ponds. Livestock use during the growing season is generally confined to the mid to late spring months (April and May); afterwards, cattle tend to drift to higher elevations within the pasture. This movement accommodates relatively long periods of riparian regrowth through the summer and early fall months (i.e., June through September), and as such, current levels and patterns of livestock use have not interfered with incremental improvements in channel function and associated aquatic habitat conditions.

Environmental Consequences of the No Action Alternative: Assuming BLM would remain effective in controlling noxious weeds without the permittee's participation; livestock removal would accelerate rates of channel rejuvenation and abbreviate timeframes for achieving proper functioning conditions on about 25% of BLM-administered portions of Brush Creek (about 12% of Brush Creek system). Quantifying the differences in effect between this and the 2 grazing-related alternatives is not possible, but the short-term contrast would be most apparent in the density and height of residual vegetation remaining after the grazing period. Heavier floodplain cover and reduced trampling disturbance of banks and channel bed would enhance the capture and retention of sediments during spring flows (March through mid May), which would accelerate lateral channel adjustment and bank building processes. However, functional differences between the two sets of alternatives would diminish as BLM continues to deter cattle trailing use of the channel via placement of large woody debris. Although incremental in effect, the accumulation of herbaceous litter on adjacent terraces and valley may also be expected to enhance infiltration on +60 acres and prolong base flow contributions from these sites.

There would be essentially no difference between the no-grazing and grazing alternatives in terms of allowing full growing season expression of channel vegetation (i.e., fully effective sediment capture/integration process June through August). Similarly, removal of cattle would probably have no effective influence on the condition or functional status of those remaining Brush Creek reaches (88%) associated with mixed conifer canopies or under private control. Overall, removing livestock influences from the Brush Creek pasture would yield relatively small-scale benefits to downstream cutthroat fisheries (e.g., reduced sediment contribution) in shorter timeframes, but, ultimately, would not be expected to detract from realizing proper functioning conditions and its attendant benefits through the permit's term.

In a very similar manner, removing fall and spring grazing influences from the West Douglas Creek channel would be expected to accelerate channel improvement processes, but would have no effective influence on the ultimate extent or condition of aquatic habitats supported by this channel.

Mitigation: BLM efforts to emplace large woody debris in the channel to deter cattle trailing and protect woody reestablishment in the middle reach of Brush Creek should continue as time and funding permits. Similarly, BLM would continue to periodically monitor functional stream properties (PFC) and macroinvertebrate populations on BLM-administered reaches of Brush Creek.

It is recommended that the terms of permittee flexibility in the Brush Creek pasture (defined in the Proposed Action) be modified such that total days-use authorized in the permit cannot be exceeded (30 days) and the pasture cannot be entered earlier than that authorized (September 1) without the approval of the Field Office Manager in consultation with appropriate Range Management, Wildlife Biology, and Hydrology staff.

Finding on the Public Land Health Standard for plant and animal communities (partial, see also Vegetation and Wildlife, Terrestrial): The improving trends associated with channel and aquatic habitat conditions in Brush and West Douglas Creeks and the maintenance of proper functioning conditions in East and mainstem Douglas Creeks currently meet the Public Land Health Standards. The proposed action would maintain current trends, and with continued emphasis on enhancing channel character by deterring livestock trailing use in the middle reach of Brush Creek, would maintain the current distribution and perhaps allow for small-scale expansion of aquatic habitat available for Colorado River cutthroat trout, thereby more fully meeting the intent of the Standards for aquatic habitats and special status wildlife. Assuming BLM would remain effective in controlling noxious weeds in this pasture without the participation of the livestock permittee, the no grazing alternative would also fully meet the applicable Health Standards.

WILDLIFE, TERRESTRIAL (includes a finding on Standard 3)

Affected Environment: The permit area spans ranges used year-round by big game. Public lands within the Bull Draw allotment and the northern half of the Texas Camp pasture are categorized as winter range and are used by deer predominately from September through mid-May. The higher elevations within the East Douglas allotment are considered mule deer summer range and are occupied from mid-May through September. With the exception of the northeast corner, the Brush Creek pasture and the western half of the Crystal Springs pasture are categorized by the Colorado Division of Wildlife as elk summer range and are generally occupied from mid-May through September. The remaining areas within the East Douglas allotment are considered general winter range for elk and are typically occupied from September through mid-May. Although big game and cattle use is largely synchronous and localized utilization rates in mutually favored sites relatively high, there are no widespread or severe instances of livestock—big game forage conflicts and the availability and variety of favored upland forages appears adequate. During allotment inspections in August 2005, BLM biologists observed no obvious instances of prolonged animal concentration or forage conditions that indicated excessive levels of seasonal use.

Blue grouse are widely distributed within the East Douglas allotment in mesic mountain shrub, aspen, and riparian habitats above 7200 feet (namely Trail Canyon, Brush Creek and Crystal Springs). Blue grouse broods tend to gravitate to these habitats during the later summer and fall months. Strong herbaceous ground cover expression, as protective cover, forage, and foraging substrate (for invertebrates) through the nest and early brood periods, is considered one of the principal factors in realizing optimal reproductive success.

Breeding raptor use of project area is represented largely by red-tailed hawk and accipitrine species. Mature pinyon-juniper and aspen woodlands throughout the project area may support a small number of breeding sharp-shinned hawk, Cooper's hawk and long-eared owl. The abundance and variety of raptor use in the project area remains high during the winter, with opportunistic foraging by golden and bald eagle, rough-legged and red-tailed hawk, and prairie falcon.

Nongame mammals using this area are typical and widely distributed in extensive like habitats across the Resource Area and northwest Colorado; there are no narrowly endemic or highly specialized species known to inhabit those lands potentially influenced by this action.

Environmental Consequences of the Proposed Action Alternative A: Under the proposed grazing schedule, there would be a 59% increase of dormant season livestock use within the Bull Draw allotment. Livestock and big game use synchronous for approximately five months (November – March) resulting in light to moderate use levels (~ 40%). Based on ground cover conditions, the timing and intensity of livestock use in conjunction with ongoing big game use would have no adverse influence on the composition, vigor, or regeneration of herbaceous vegetation. Livestock use of heavy bunchgrass residual in the late fall/early winter likely operates to increase the availability of emerging grass growth as a nutritious forage source for big game in the spring. Current and proposed livestock use has no apparent influence on the availability or production of woody forage for big game winter use.

Collective use by livestock and big game reduces residual cover through the fall and winter months, but at moderate use levels (\sim 40% utilization), sufficient residual and basal cover should remain widely available on BLM-administered lands during the winter and into the spring to provide adequate ground cover and/or forage for non-hibernating small mammals and early nesting attempts by ground-nesting birds.

Increased levels of use in the East Douglas allotment range from 11% (Trail Canyon, Crystal Springs and Brush Creek pastures) to 34% (Texas Camp pasture), however, it is not expected that big game use would be influenced to any substantial degree under the proposed grazing schedule. Cattle use is typically more sedentary and concentrated in the valley bottoms or near water (particularly in spring and early summer), while big game generally make use of the slopes and higher elevations prior to cattle arriving. Removal of heavier mature or residual bunchgrass growth by livestock tends to increase accessibility of fall regrowth or emergent spring growth for big game. Bunchgrass preconditioning effects attributable to cattle would be situated where spring use by deer is concentrated as well. Grazing influence throughout the allotment through late September (particularly Brush Creek, Trail Canyon and Crystal Springs pastures), under normal precipitation patterns, likely provide an abundance of fall grass regrowth as deer migrate through this area.

Providing a number of livestock waters in the Texas Camp pasture would substantially decrease concentrated use in the valley bottoms and allow for better distribution of livestock throughout the growing season.

While proposed use of the Crystal Springs, Brush Creek and Trail Canyon pastures within the East Douglas allotment would increase by 11% for each allotment from current levels of use, it is not expected to have substantive influence on the utility of herbaceous ground cover for blue grouse nesting and brood-rearing functions as livestock would not be turned out until late summer to early fall. Progressive declines in ground cover in localized areas, although rapid, would occur after most broods have fledged and would be expected to have little effect on nest or fledging success.

Noxious weed would continue to threaten the integrity of all vegetation resources as forage and cover resources, but ongoing efforts by the permittees and BLM would be expected to remain effective in stalling the spread and influence of these weeds on native communities.

Environmental Consequences of the Continuation of Current Management Alternative: The current grazing schedule within the Bull Draw allotment is not expected to differ markedly from the proposed action. Allotment inspections conducted in August showed no indications of widespread deficiencies in herbaceous or woody forage availability for big game and non-game mammals. Light use levels (27%) allow for the continued improvement in the composition, vigor, and density of herbaceous ground cover, particularly in those valleys where invasive annuals (e.g., cheatgrass) are prevalent.

Current use within the Brush Creek, Trail Canyon and Crystal Springs pastures would be similar to those discussed in the proposed action. Reductions in livestock numbers may slightly decrease the availability of regrowth grasses grazed by cattle through the late summer and early fall months. Although limited water availability has resulted in heavier use of bottomland situations and those uplands in close proximity to water within the Texas Camp pasture, there are no indications of widespread use by big game or cattle of woody forages that influence or interrupt the abundance or continued development of deciduous shrubs as woody forage or cover. Construction of stock ponds should allow for better distribution throughout the Texas Camp pasture, decreasing heavy use in the valley bottoms.

Environmental Consequences of the No Action Alternative: Removing livestock use would substantially increase seasonal herbaceous expression across much of the permit area's mid-seral bottomlands, ridgelines, and toeslopes. Non-game mammals would be expected to respond to increasing cover and forage bases with minor increases in pinyon-juniper communities and steep mountain shrub slopes. Increases would be most prominent in those areas favored by livestock that are grazed synchronous with the nesting season and bottomlands and mildly-sloped terrain throughout the higher elevation pastures. Livestock removal would also be expected to reduce use of heavy bunchgrass top growth, which would tend to slightly reduce big game access to grass growth in the spring, particularly by deer.

As discussed in the Migratory Bird section, it is believed that a serious consequence of denying a livestock permit would be the dissolution of incentives for continued weed control by the livestock permittee.

Mitigation: None

Finding on the Public Land Health Standard for plant and animal communities (partial, see also Vegetation and Wildlife, Aquatic): BLM-administered woodlands and shrublands encompassed by this allotment generally meet the land health standard for animal communities. It is expected that the no-action alternative could dramatically increase herbaceous expression within both, allotments, particularly the Texas Camp pasture, in the short term, but expected trends in noxious weed proliferation would result in exponential increases in acreage failing to meet the standard in the long term.

Without intensive intervention, neither the no-action or grazing related alternatives would, in and of themselves, substantially reduce the extent of ranges not meeting the standard - approximately 200 acres of cheatgrass dominated understory. While this provides an abundant but short duration forage source in spring, these inclusions do not substantially impair winter forage conditions.

OTHER NON-CRITICAL ELEMENTS: For the following elements, only those brought forward for analysis will be addressed further.

Non-Critical Element	NA or Not Present	Applicable or Present, No Impact	Applicable & Present and Brought Forward for Analysis
Access and Transportation		X	
Cadastral Survey	X		
Fire Management	X		
Forest Management			X
Geology and Minerals	X		
Hydrology/Water Rights			X
Law Enforcement		X	
Noise	X		
Paleontology			X
Rangeland Management			X
Realty Authorizations		X	
Recreation		X	
Socio-Economics		X	
Visual Resources		X	
Wild Horses	X		

FOREST MANAGEMENT

Affected Environment: The following table lists the woodland community on allotments associated with the proposed action.

ACRES OF WOODLAND COMMUNITIES BY ALLOTMENTS

ALLOTMENT	PINYON/ JUNIPER ACRES	DOUGLAS- FIR/SPRUCE-FIR	ASPEN
East Douglas Creek	8958	3164	17
Bull Draw	4199	0	0
Total	13157	3164	17

Within the current land use plan all of the pinyon/juniper woodlands in the Douglas/Cathedral Geographic Reference Areas (GRA) are classified as commercial and non-commercial based on productivity and harvest suitability. Commercial woodlands are considered within the decadal harvest limit which is limited to 20 acres/ year clear cut and 61 acres/year selective cut. The GRA limits take into consideration the pinyon/juniper (P/J) chainings (3,500 acres) on the East Douglas Creek allotment. The opportunities for commercial harvest of P/J on the East Douglas and Bull Draw allotments are limited. Non-commercial woodlands are not considered in the decadal harvest for the WRFO, and will not be managed for commercial firewood production. Woodlands in this GRA are available for harvest by private individuals. The majority of harvesting is for fuel wood and fence posts. These woodlands are available for manipulation to enhance other resource values.

In the mid-1960s, 3,500 acres of pinyon/juniper woodlands was treated by chaining and seeded with crested wheatgrass. During the period of 1999 to 2002 these chainings were prescribed burned to eliminate saplings that were dominating the chainings and significantly decreasing the forage productivity of these treatments. The prescription for these treatments was to spot burn to break up the continuity of fuels, create edge effect and to stagger P/J age classes.

The upper elevations of the east Douglas Creek allotment contain Douglas-fir and spruce-fir stands. The spruce-fir stands are predominately subalpine fir. These stands occur on steep, north and west facing slopes and the bottom of Brush Creek. The Douglas-fir stands are relatively sparse and old aged and strung out along the ridgetops. The individual trees show shape characteristics of the extreme conditions (high winds) which they inhabit. The subalpine fir stands are extensive and overstocked with disease problems including; black stain, bark beetles and mistletoe. Commercial opportunities for use of subalpine fir are low because of the poor quality wood.

East Douglas Creek allotment contains stands of aspen estimated at 17 acres. Aspen forests are classified as non-commercial based on their limited range and importance to plant community diversity. Limited harvest of firewood and transplants is allowed. Overall aspen communities are decreasing in range in Colorado. The current land use plan identifies aspen as being available for treatment to maintain and enhance these stands and achieve the desired plant community. Any aspen treatments would be analyzed in activity plans. The aspen stands in the East Douglas Creek allotment are mature stands with limited reproduction. Grazing by livestock and wildlife has been shown to decrease or eliminate reproduction. At such time as these stands start to die out, there is expected to be a need to restore the individual stands. This would require treatment of the individual stands followed by fencing to prevent grazing by livestock and

wildlife. Fencing would be required until saplings are large enough to survive browsing which is estimated at five years.

Environmental Consequences of the Proposed Action: Livestock grazing in general has not been shown to adversely impact existing pinyon/juniper woodlands. Livestock grazing may play some role in increasing invasion of pinyon/juniper woodlands on sagebrush sites by decreasing the competitive nature of native plant communities. Grazing also decreases fine fuel loading decreasing the intensity and frequency of fires which would kill seedling and sapling trees. Under this alternative there would be an increase in the cover and composition of desired forage species which would compete with pinyon/juniper seedlings, decreasing the rate of invasion of sagebrush sites. There would be an increase in the litter and fine fuels increasing the frequency of fires which would limit the encroachment of pinyon/juniper woodlands into sagebrush types.

The P/J chainings are critical to the success of the grazing program by increasing forage on the hilltops which in turn improves the distribution of livestock and decreases the use of the bottoms. Over time these treatments will revert to a P/J woodland, requiring decisions to be made in the future as to the use of these plant communities. Post burn 2001, saplings are not expected to dominate the treatments for another 30 years.

Large scale fires in the mountain browse vegetation type may carry into the spruce/fir type creating stand replacing fires. Douglas-fir and spruce/fir stands would not be affected by grazing because of their isolated nature.

The proposed grazing program would limit grazing use within aspen stands to a one month period. This may allow for limited sprouting of aspen. In the event that treatments are required to restore aspen communities, an activity plan and environmental assessment would be prepared. Stands would be inventoried and prioritized for treatment. Treatment is not expected to involve more than 20 acres of aspen at any one time. Treatment of aspen is also expected to allow for development of more productive grass/forb communities under the aspen and increase the competition against noxious weed invasion.

Environmental Consequences of the Continuation of Current Management Alternative: Impact of this alternative would not differ significantly from the preferred alternative, even though grazing use is 35%less than the preferred alternative.

Environmental Consequences of the No Grazing Alternative: There would be a rapid increase in fine fuel loadings on the chainings and mountain browse types. Fire frequencies would go up significantly with fires expected to carry into the pinyon/juniper associations creating stand-replacing fires. The P/J ridgetops may develop a patchy mosaic of varying aged pinyon/juniper stands, or pinyon/juniper woodlands would be relegated to those areas that are fire resistant such as bluffs and areas containing rim-rock. The distribution of pinyon/juniper would be the same as before European influence.

Large scale fires in the mountain browse vegetation type may carry into the spruce/fir type creating stand replacing fires.

Reproduction within aspen stands is expected to increase significantly. The need for fencing of aspen stands would not be required.

Mitigation: None

HYDROLOGY AND WATER RIGHTS

Affected Environment: The majority of the resource area was inventoried in the early 1980's for springs. The following table lists springs which were identified in the WRFO Water Atlas for the assessment area.

SPRINGS AND WATER RIGHT DATA FOR THE PROPOSED PERMIT RENEWAL

MAP CODE	TWP	RANGE	SEC #	1/4 SEC.	WATER RIGHT	SC	PH	Q (GPM)	DATE	COMMENTS
175-16	3S	100W	17	NWSW	N/A	5099	7.4	0.3	6/13/84	Seasonal
181-17	5S	101W	8	NWSW	W46771	840	8.8	0.8	7/31/84	Perennial
181-37	5S	101W	8	NESW	85CW524	649	8.2	12	7/31/84	Perennial
181-38	5S	101W	17	SWNW	85CW525	857	8.4	4	7/31/84	Perennial
182-01	4S	101W	3	SWSN	AR72	1884	7.5	2	6/27/84	Perennial
182-04	4S	101W	22	SESW	AR72	1359	7.2	6.3	7/2/84	Perennial
182-04	4S	101W	22	SESW	AR72	4058	7.5	1.8	6/28/84	Perennial
182-10	4S	101W	33	SWNW	85CW359	1260	8.3	24	8/7/84	Perennial
182-11	4S	101W	33	NESE	85CW359	1165	8.3	0.8	8/8/84	Perennial
182-14	5S	101W	8	NENE	95CW339	930	7	1.9	8/13/84	Perennial
182-18	5S	101W	17	SWNE	85CW531	1025	8.4	60	7/31/84	Perennial
182-39	4S	101W	34	SENE	N/A	5895	8.6	0.1	7/12/84	Seasonal
182-40	4S	101W	34	NENW	N/A	N/A	N/A	dry	7/3/84	Seasonal
182-41	4S	101W	34	NWNW	N/A	N/A	N/A	dry	7/3/84	Seasonal
182-42	4S	101W	33	NENE	N/A	N/A	N/A	dry	7/3/84	Seasonal
182-43	4S	101W	33	NWNE	85CW426	1189	8.3	65	7/2/84	Perennial
182-44	4S	101W	22	SWSW	W46771	4058	7.5	1.84	6/28/84	Perennial
182-47	4S	101W	3	NWSW	N/A	4680	8.3	13	6/27/84	Seasonal
182-48	4S	101W	28	NWNW	98CW41	5086	7.9	8	6/28/84	Perennial
182-49	4S	101W	28	NENW	N/A	3019	8.5	2.55	6/29/84	Seasonal
182-50	4S	101W	22	SESE	85CW358	2381	7.8	0.6	7/2/84	Perennial
182-58	5S	101W	8	SESW	85CW529	838	8.3	1.5	7/31/84	Perennial
197-01	5S	101W	20	NWNE	85CW513	720	7.9	13	7/17/84	Perennial
198-01	5S	101W	17	NESW	W46771	750	8.3	8.6	8/1/84	Perennial
198-02	5S	101W	20	NWWW	85CW517	666	8.2	9	8/1/84	Perennial
198-03	5S	101W	29	NWNW	85CW516	510	8	1.9	8/8/84	Perennial
198-05	5S	101W	17	NWSW	98CW141	633	8.5	5	8/1/84	Perennial
198-06	5S	101W	17	SWSW	85CW515	715	8	6.3	8/1/84	Perennial
198-07	5S	101W	18	SESE	85CW515	834	8.1	24	8/1/84	Perennial
198-08	5S	101W	20	NWNW	85CW517	823	8.2	8	8/1/84	Perennial

The BLM has obtained water rights on all of the identified perennial springs. Typically water rights are not granted on springs that do not maintain a perennial flow. Additional monitoring will be necessary to assess the functionality of existing spring developments and address the need for repair at specified locations.

In the fall of 2005 an attempt was made to protect several spring sources and their associated wetlands/riparian communities located in the upper reaches of the Brush Creek drainage. "Natural" barriers (felled snags) were systematically positioned in attempts to discourage livestock use near spring sources (figure 1), in wetlands (figure 1), and along portions of the stream bank (figure 2).

Figure 1: Brush Creek (fall 2005) following treatment.



Figure 2: Brush Creek (fall 2005) following treatment.



Environmental Consequences of the Proposed Action Alternative A: Livestock tend to congregate near perennial water sources resulting in significant reductions in vegetal cover and increased ground disturbance due to hoof action. Reduced ground cover in these areas leaves soils vulnerable to erosion increasing sediment loads down gradient. The above Brush Creek treatment that was implemented in fall 2005 should help to keep livestock out of these spring areas and from damaging the protective vegetation. If this project proves to be successful, then additional projects would help to mitigate impacts caused to watering areas.

Environmental Consequences of the Continuation of Current Management Alternative: Potential adverse environmental impacts associated with the current grazing management plan mirror those of alternative A. However, with current management the number of livestock is reduced thus reducing the potential severity of the impacts.

Environmental Consequences of the No Action Alternative: The State of Colorado requires holders of state water to use those water rights in order to retain them. A beneficial use identified by the BLM for retention of these water rights is livestock grazing. The no-grazing

alternative would not provide the beneficial use needed for the state to ensure the BLM is adhering to their "use it or lose it" doctrine.

Mitigation: Spring developments must be maintained and all non-functional items (e.g. old water troughs, pipes, fence, etc...) must be removed and properly disposed of by the permit holder. Spring monitoring must continue to evaluate the functionality of developments and assess water quality at spring sources.

Continue monitoring and evaluation of the effectiveness of the project (Brush Creek treatments) combined with follow-up work (if successful) planned for the 2006 field season and should continue throughout the life of the grazing permit.

PALEONTOLOGY

Affected Environment: The herd area is underlain by four formations, the Mesa Verde, the Wasatch, the Parachute Creek unit of the Green River Formation and the Garden Gulch/Douglas Creek unit of the Green River Formation. The BLM has classified the Mesa Verde, Wasatch and Parachute Creek formations/units as Condition I fossil bearing formations. This means that these units are of considerable scientific interest due to the presence of a wide variety of vertebrate fossils including dinosaurs, a wide range of mammals including what may be some of the earliest known forms and exceptional preservation of invertebrates, especially insects and plants. The Douglas Creek/Garden Gulch member of the Green River formation is currently classified as a Condition II formation meaning that its fossil bearing potential is currently not well documented or understood.

Quaternary alluviums are found in the bottoms of drainages, especially Douglas Creek and some of the larger tributaries. Quaternary alluviums are not considered fossil bearing and any fossils that might happen to occur would be likely regarded as "float" or remains that are largely out of context and of somewhat limited scientific value.

Environmental Consequences of the Proposed Action Alternative A: Prior to the 1997 White River ROD/RMP paleontological inventory in the herd area was very limited, mostly on a research basis only. Inventory was not conducted as a part of human development type projects. Fossil localities were known be subject to trampling impacts from animals from reviews of scientific literature though no attempts were made prior to the White River ROD/RMP to address the issue in the herd area. When animal related impacts were noted there was no consistent attempt to attribute the impacts to livestock or horses or big game animals. The training process to condition paleontologists note animal impacts to surface localities in the same manner that archeologists are used to doing for archaeological sites is ongoing.

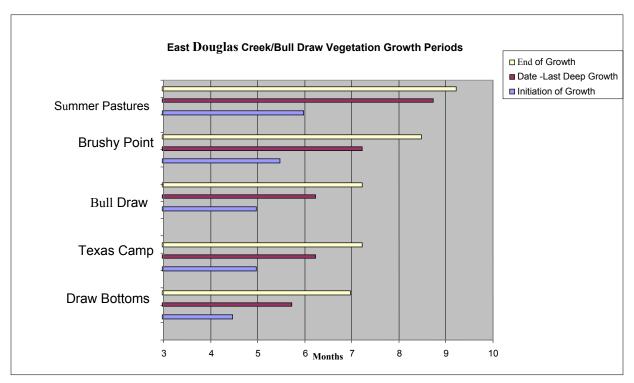
Environmental Consequences of the Continuation of Current Management Alternative: Impacts would be the same as Alternative A, above.

Environmental Consequences of the No Action Alternative: Impacts analyzed in Alternative A would not occur.

Mitigation: It is unlawful for the permittee, agents or employees to knowingly disturb or collect cultural, historical or paleontological materials on public lands. If cultural, historical or paleontological materials are found, including human remains, funerary items or objects of cultural patrimony, the permittee is to stop activities that might disturb such materials, and notify the authorized officer immediately.

RANGELAND MANAGEMENT

Affected Environment: The goal of rangeland management is to care for the forage resource by allowing vegetation to grow, reproduce and store carbohydrates. This can be accomplished the timing of grazing to allow for rest or deferment. The chart below shows the approximate growth periods for the various areas within the Bull Draw and East Douglas Creek allotments.



The location of range improvement projects including, land treatments, fences and waters can also help to improve the distribution of livestock. No range improvements projects are considered in this assessment. Additional range improvements would be identified on an ongoing basis to address specific livestock or resource needs.

Environmental Consequences of the Proposed Action Alternative A: Under Alternative A there would be an increase in the Permitted Use on the Bull Draw and East Douglas Creek allotments from the currently permitted 200 cattle. Increased use of 250 cattle has been tested on the allotment since 1998. During the drought years of 2000-2004 livestock numbers were decreased because of limited forage. Monitoring has shown an improvement in vegetation

composition and production throughout the area, leading to an appraisal that increasing the herd size to 225 cattle would be more sustainable during drought years. The periods of use for each pasture have been shown to allow for improvement of the plant communities either by allowing for periods of growth prior to grazing or regrowth post grazing.

Bull Draw Allotment is used during the Late Fall/Winter/Early Spring (11/16 to 3/31), livestock are removed before the initiation of growth 5/1 which allows 40 days or total opportunity for growth before livestock start grazing in the late fall.

The Texas Camp pasture which includes Brushy Point is used during the spring and fall periods (3/1 to 6/30 and 10/1 to 1/28) has a wide range of elevations and vegetation types which allow livestock to move in elevation decreasing localized grazing. The lower elevations which include the Draw Bottoms and Texas Camp are allowed spring regrowth starting May 1; this allows 20 days regrowth of the bottoms and 40 days regrowth of the Texas Camp area. Brushy Point is allowed 15 days of growth and regrowth of 10 days.

Trail Canyon pasture is used during the summer and fall (7/1 to 7/30 and 10/1 to 11/15 [reduced numbers]) which allows 30 days of growth before grazing and 20 days of regrowth following grazing. Fall grazing is in association with the use of private lands along East Douglas Creek and moving of cattle to Texas Camp and Bull Draw.

Crystal pasture is used during the summer (8/1 to 8/31) which allows for 60 days growth before grazing.

Brush Creek pasture is used during the summer (9/1 to 9/31) which allows for 80 days growth before grazing.

Overall there has been improvement is most plant communities resulting from the grazing system which allows for plants meeting their requirements for growth, reproduction and carbohydrate storage. Plant communities of concern are the greasewood/sagebrush/western wheatgrass bottoms found in the bottoms of Bull Draw and East Douglas Creek allotments. These bottoms are improving in composition in understory from cheatgrass/annual forbs to sand dropseed/western wheatgrass.

Environmental Consequences of the Continuation of Current Management Alternative: The discussion of the preferred alternative also applies to this alternative. The difference would be in staying with the current permitted use (200 cattle) which is 35% below the preferred alternative. Vegetation assessments and testing with greater numbers of livestock have been shown to be acceptable and of benefit to the livestock operation.

Environmental Consequences of the No Action Alternative: Removal of livestock grazing would eliminate this livestock operation as this ranch is highly dependant on public lands grazing. This would force the livestock operator to sell the majority of livestock. The private lands could continue to raise hay for sale although this would not support the operator. Without livestock grazing the operator would no longer be required to maintain range improvement projects, decreasing water supplies for wildlife. Fences would no longer be needed and would

fall into disrepair creating hazards to wildlife. Weed control would decrease with the rancher no longer participating in weed control.

Mitigation: No additional mitigation necessary.

CUMULATIVE IMPACTS SUMMARY: Cumulative impacts from the proposed action would not exceed those discussed in the White River Resource Area RMP and/or White River Resource Area Grazing Management Environmental Impact Statement (EIS).

PERSONS / AGENCIES CONSULTED: A Public Notice of the NEPA action is posted on the White River Field Office Internet website at the Colorado BLM Home Page asking for public input on Grazing Permit renewals and the assessment of public land health standards within the White River Field Office area. Local notification is published in the Rio Blanco Herald Times newspaper located here in Meeker, Colorado on a monthly basis. The Grazing Advisory Board was notified of impending Grazing Permit renewals. Also, individual letters are sent to the lessees/permittees (Wayne and Chantae Penell representing Bryant Trust 1991)and documented parties of interest (Bob Schmidt and Tony Moore) informing them of the permit renewal and requesting any information they want included in or taken into consideration during the renewal process.

REFERENCES CITED: None

INTERDISCIPLINARY REVIEW:

Name	Title	Area of Responsibility
Nate Dieterich	Hydrologist	Air Quality
Ed Hollowed	Wildlife Biologist	Areas of Critical Environmental Concern
Tamara Meagley	Natural Resource Specialist	Threatened and Endangered Plant Species
Gabrielle Elliott	Archeologist	Cultural Resources Paleontological Resources
Robert Fowler	Rangeland Management Specialist	Invasive, Non-Native Species
Lisa Belmonte	Wildlife Biologist	Migratory Birds
Lisa Belmonte	Wildlife Biologist	Threatened, Endangered and Sensitive Animal Species
Melissa Kindall	Hazmat Collateral	Wastes, Hazardous or Solid
Nate Dieterich	Hydrologist	Water Quality, Surface and Ground Hydrology and Water Rights
Robert Fowler	Forester	Wetlands and Riparian Zones
Chris Ham	Outdoor Recreation Planner	Wilderness
Robert Fowler	Forester	Soils
Robert Fowler	Rangeland Management Specialist	Vegetation
Lisa Belmonte	Wildlife Biologist	Wildlife Terrestrial and Aquatic
Chris Ham	Outdoor Recreation Planner	Access and Transportation
Ken Holsinger	Natural Resource Specialist	Fire Management
Robert Fowler	Forester	Forest Management
Paul Daggett	Mining Engineer	Geology and Minerals
Robert Fowler	Rangeland Management Specialist	Rangeland Management
Penny Brown	Realty Specialist	Realty Authorizations
Chris Ham	Outdoor Recreation Planner	Recreation
Chris Ham	Outdoor Recreation Planner	Visual Resources
Valerie Dobrich	Natural Resource Specialist	Wild Horses

Finding of No Significant Impact/Decision Record (FONSI/DR)

CO-110-2005-191-EA

FINDING OF NO SIGNIFICANT IMPACT (FONSI)/RATIONALE: The environmental assessment and analyzing the environmental effects of the proposed action have been reviewed. The approved mitigation measures (listed below) result in a Finding of No Significant Impact on the human environment. Therefore, an environmental impact statement is not necessary to further analyze the environmental effects of the proposed action.

<u>DECISION/RATIONALE</u>: It is my decision to implement the proposed action to renew the grazing permit for Bryant 1991 Trust for a period of ten years for the Bull Draw (06354) and East Douglas Creek (06356) grazing allotments as described in the preferred action alternative with the addition of the below mitigation.

MITIGATION MEASURES:

- 1. It is unlawful for the permittee, agents or employees to knowingly disturb or collect cultural, historical or paleontological materials on public lands. If cultural, historical or paleontological materials are found, including human remains, funerary items or objects of cultural patrimony, the permittee is to stop activities that might disturb such materials, and notify the authorized officer immediately.
- 2. Monitor vegetation in accordance with bureau policy. Vegetation monitoring data would be used to identify if additional actions were needed to comply with the *Clean Water Act*. Continue monitoring of stream channel morphology (Rosgen survey data) will be essential to evaluate the impacts of increased livestock numbers on E. Douglas Creek and its tributaries. If necessary, additional structures will be utilized to minimize disturbance to stream banks/channel and riparian areas within the allotment boundaries (e.g. Brush Creek).
- 3. Continue monitoring and evaluation of the effectiveness of the project (Brush Creek treatments) combined with follow-up work (if successful) planned for the 2006 field season and should continue throughout the life of the grazing permit
- 4. Adhere to the soil management objective established in the White River ROD/RMP, which is to prevent impairment of soil productivity due to accelerated erosion and physical or chemical degradation resulting from surface use activities. Management actions support the goals provided as indicators in Standard One of the Standards for Public Land Health.

- 5. BLM efforts to emplace large woody debris in the channel to deter cattle trailing and protect woody reestablishment in the middle reach of Brush Creek should continue as time and funding permits. Similarly, BLM would continue to periodically monitor functional stream properties (PFC) and macroinvertebrate populations on BLM-administered reaches of Brush Creek.
- 6. It is recommended that the terms of permittee flexibility in the Brush Creek pasture (defined in the Proposed Action) be modified such that total days-use authorized in the permit cannot be exceeded (30 days) and the pasture cannot be entered earlier than that authorized (September 1) without the approval of the Field Office Manager in consultation with appropriate Range Management, Wildlife Biology, and Hydrology staff.
- 7. Spring developments must be maintained and all non-functional items (e.g. old water troughs, pipes, fence, etc...) must be removed and properly disposed of by the permit holder. Spring monitoring must continue to evaluate the functionality of developments and assess water quality at spring sources.

COMPLIANCE/MONITORING: Compliance with the renewed grazing permit will be accomplished through the White River Field Office Range Management Program. Monitoring will be done by the range staff using Colorado Public Land Standards for Rangeland Health.

NAME OF PREPARER: Robert J. Fowler

NAME OF ENVIRONMENTAL COORDINATOR: Caroline Hollowed

SIGNATURE OF AUTHORIZED OFFICIAL: If all fly hearter

DATE SIGNED: 5/17/06

ATTACHMENTS: Location Map of the Proposed Action

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